United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
Virginia Polytechnic
Institute and State
University

Soil Survey of Patrick County, Virginia

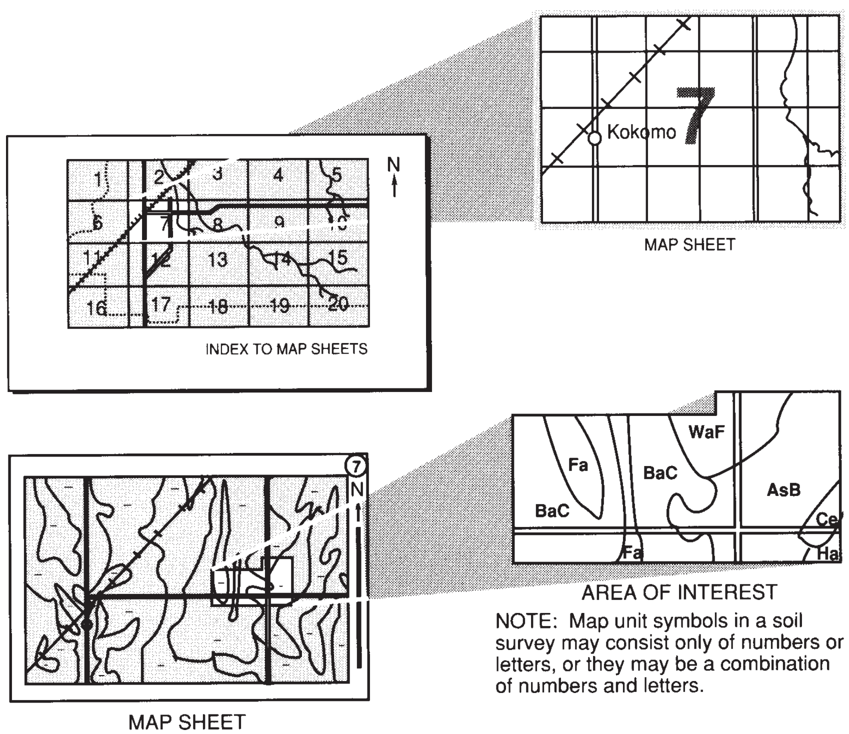
How To Use This Soil Survey

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and go to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Go to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service; the Virginia Polytechnic Institute and State University; the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation; and the Patrick County Board of Supervisors. The survey is part of the technical assistance furnished to the Patrick Soil and Water Conservation District. The Patrick County Board of Supervisors and the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, provided financial assistance for the survey.

Major fieldwork for this soil survey was completed in 2000. Soil names and descriptions were approved in 2000. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2000. The most current official data are available at http://websoilsurvey.nrcs.usda.gov/app/. Taxonomic classifications of soil series have been updated to the 10th edition of Soil Taxonomy.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale. The information contained in this soil survey is not site specific and does not eliminate the need for onsite investigation.

Nondiscrimination Statement

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

Contents

Issued 2009

Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, ranchers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency—nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each map unit is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

John A. Bricker
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Patrick County, Virginia

By Mark A. Van Lear, Natural Resources Conservation Service

Fieldwork by Mark Stolt, Steve Cromer, Ron Straw, Philip Cobb, Eddie Childers, Virginia Polytechnic Institute and State University, and Charles Nelson, Roger Leab, and David Clapp, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with
Virginia Polytechnic Institute and State University

PATRICK COUNTY is located in the southern part of Virginia in the Blue Ridge and Piedmont physiographic provinces (fig. 1). It has an area of 311,100 acres, or 486 square miles. Patrick County is bordered on the north by Franklin County, on the south by Stokes and Surry Counties, North Carolina, on the east by Henry County, and on the west and northwest by Carroll and Floyd Counties. U.S. Route 8 runs north-south through the county, and U.S. Highway 58 runs east-west. Both roads pass through the town of Stuart. In 2000, according to the Census Bureau, the population of the county was 19,407 *(20)*.

General Nature of the Survey Area

This section provides general information about the survey area. It discusses history, climate, and physiography, relief, and drainage.

History

Patrick County was legislatively formed out of the western portion of Patrick Henry County, which no longer exists. In 1791, it officially became a separate county. The earliest settlers were Scotch-Irish descendants from Pennsylvania, and later settlers were English descendants from eastern Virginia and parts of North Carolina.

Stuart has been the county seat since the county's inception. Other communities include Ararat, Claudville, Critz, Meadows of Dan, Patrick Springs, Vesta, Woolwine, and Russel Creek.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Stuart, Virginia, in the period 1971 to 2000. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 38.0 degrees F and the average daily minimum temperature is 28.4 degrees. The lowest temperature on record, which

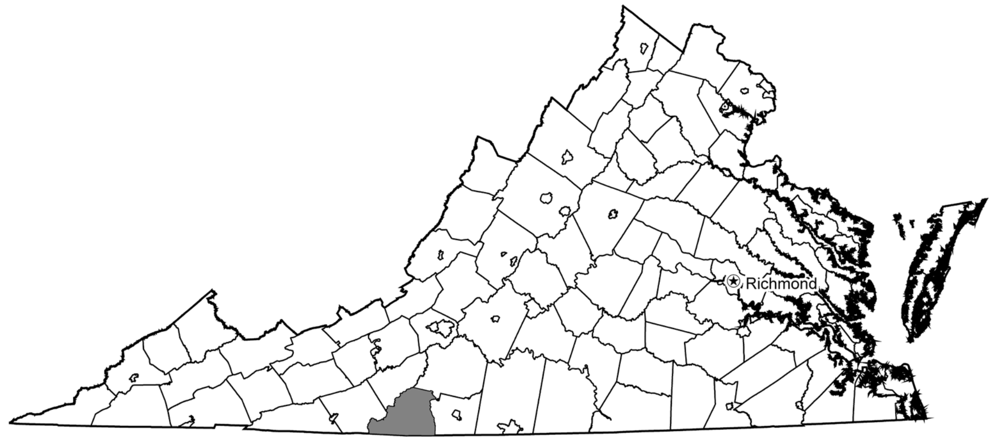


Figure 1.— Location of Patrick County in Virginia.

occurred at Stuart on January 30, 1966, is -17 degrees. In summer, the average temperature is 73.2 degrees and the average daily maximum temperature is 84.0 degrees. The highest temperature, which occurred at Stuart on August 20, 1983, is 100 degrees.

Growing degree days are shown in table 1. They are equivalent to “heat units.” During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is 51.32 inches. Of this, 32.03 inches, or about 62 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 7.15 inches at Stuart on August 18, 1985. Thunderstorms occur on about 37 days each year, and most occur in July.

The average seasonal snowfall is 12.0 inches. The greatest snow depth at any one time during the period of record was 16 inches, recorded on February 14, 1960. On an average, no days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 14.0 inches, recorded on February, 14, 1960.

The average relative humidity in mid-afternoon is about 53 percent. Humidity is higher at night, and the average at dawn is about 78 percent. The sun shines 60 percent of the time in summer and 43 percent in winter. The prevailing wind is from the northwest. Average windspeed is highest, 8.5 miles per hour, in March.

Physiography, Relief, and Drainage

Patrick County is within two major land resource areas. The western portion is located in the Blue Ridge physiographic province and accounts for about one-third of the survey area. The eastern portion is located in the Piedmont physiographic province and accounts for about two-thirds of the survey area.

The eastern portion of the county consists mainly of broad to narrow ridges dissected by numerous short drainageways. The ridgetops are commonly gently sloping or strongly sloping. The sides of the ridges are generally moderately steep, steep, or very steep.

The western portion of the county is characterized mainly by isolated hills, low mountain peaks, mountain ridges, and the Blue Ridge Mountains along the western border of the county. The sides of the mountains are generally steep or very steep.

The lowest elevation in the county is approximately 800 feet above sea level, located in the southeastern corner where the South River enters Henry County. The highest elevation is approximately 3,570 feet above sea level, located in Rocky Knob Recreation Area in the western part of the county on the border with Floyd County.

The survey area is drained primarily by five river systems. Central and eastern portions of the county are drained by the North Mayo River and the South Mayo River and their tributaries. Northern and northwestern parts of the county are drained by the Smith River and its tributaries. Southern and southwestern portions of the county are drained by the Dan River and the Ararat River. The North Mayo, South Mayo, and Dan Rivers generally flow southeasterly. The Smith River initially flows northeasterly then turns southeast, forming Philpott Lake along the border of Franklin and Henry Counties. The Ararat River flows southwesterly through the county.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a different knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a

soil phase commonly indicates a feature that affects use or management. For example, Minnieville loam, 8 to 15 percent slopes, is a phase of the Minnieville series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Evard-Cowee complex, 15 to 25 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Colvard and Suches soils, 0 to 3 percent slopes, occasionally flooded, is the only undifferentiated group in this survey area.

Soil surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Water is an example.

Table 4 lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

1D—Bellspur-Kibler complex, 15 to 25 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Bellspur and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Kibler and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Bellspur

Surface layer:
0 to 8 inches—very dark grayish brown gravelly loam

Subsoil:
8 to 14 inches—brown gravelly sandy clay loam
14 to 23 inches—dark yellowish brown gravelly fine sandy loam
23 to 28 inches—dark yellowish brown gravelly fine sandy loam with common yellowish brown mottles

Substratum:
28 to 32 inches—dark yellowish brown gravelly fine sandy loam with common strong brown mottles
32 to 35 inches—strong brown gravelly loamy sand with many dark yellowish brown mottles

Soft bedrock:
35 to 41 inches—weakly cemented gneiss bedrock

Hard bedrock:
41 to 80 inches—indurated gneiss bedrock

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Widgett soils, which are similar to the Bellspur soil, have more than 35 percent rock fragments in the subsoil, and have hard bedrock between depths of 20 and 40 inches
- Soils that are similar to the Kibler soil and have soft bedrock between depths of 40 and 60 inches
- Soils that are similar to the Kibler soil that have dark surface horizons

Soil Properties and Qualities

Available water capacity: Bellspur—low (about 4.4 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Bellspur—moderately deep (20 to 40 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Bellspur—20 to 40 inches to bedrock (paralithic); Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Bellspur—JJ; Kibler—FF
Hydric soils: No

1E—Bellspur-Kibler complex, 25 to 45 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Bellspur and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Kibler and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Bellspur

Surface layer:
0 to 8 inches—very dark grayish brown gravelly loam

Subsoil:
8 to 14 inches—brown gravelly sandy clay loam
14 to 23 inches—dark yellowish brown gravelly fine sandy loam
23 to 28 inches—dark yellowish brown gravelly fine sandy loam with common yellowish brown mottles

Substratum:
28 to 32 inches—dark yellowish brown gravelly fine sandy loam with common strong brown mottles
32 to 35 inches—strong brown gravelly loamy sand with many dark yellowish brown mottles

Soft bedrock:
35 to 41 inches—weakly cemented gneiss bedrock

Hard bedrock:
41 to 80 inches—indurated gneiss bedrock

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Widgett soils, which are similar to the Bellspur soil, have more than 35 percent rock fragments in the subsoil, and have hard bedrock between depths of 20 and 40 inches
- Soils that are similar to the Kibler soil and have soft bedrock between depths of 40 and 60 inches
- Soils that are similar to the Kibler soil and have dark surface horizons

Soil Properties and Qualities

Available water capacity: Bellspur—low (about 4.4 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Bellspur—moderately deep (20 to 40 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Bellspur—20 to 40 inches to bedrock (paralithic); Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Bellspur—high; Kibler—medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak and eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Bellspur—JJ; Kibler—FF
Hydric soils: No

2C—Bellspur-Trimont complex, 8 to 15 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Bellspur and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Trimont and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Bellspur

Surface layer:
0 to 8 inches—very dark grayish brown gravelly loam

Subsoil:
8 to 14 inches—brown gravelly sandy clay loam
14 to 23 inches—dark yellowish brown gravelly fine sandy loam
23 to 28 inches—dark yellowish brown gravelly fine sandy loam with common yellowish brown mottles

Substratum:
28 to 32 inches—dark yellowish brown gravelly fine sandy loam with common strong brown mottles
32 to 35 inches—strong brown gravelly loamy sand with many dark yellowish brown mottles

Soft bedrock:
35 to 41 inches—weakly cemented gneiss bedrock

Hard bedrock:
41 to 80 inches—indurated gneiss bedrock

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Widgett soils, which are similar to the Bellspur soil, have more than 35 percent rock fragments in the subsoil, and have hard bedrock between depths of 20 and 40 inches
- Cowee soils, which are similar to the Bellspur soil and do not have dark surface horizons
- Soils that are similar to the Trimont soil and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Bellspur—low (about 4.4 inches); Trimont—moderate (about 8.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Bellspur—moderately deep (20 to 40 inches); Trimont—very deep (more than 60 inches)
Depth to root-restrictive feature: Bellspur—20 to 40 inches to bedrock (paralithic); Trimont—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Bellspur—high; Trimont—medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.
- Rock outcrops may limit machinery operations.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Bellspur—JJ; Trimont—FF
Hydric soils: No

3C—Bluemount gravelly silt loam, 8 to 15 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Bluemount and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown gravelly silt loam

Subsoil:
4 to 14 inches—dark yellowish brown silt loam
14 to 24 inches—yellowish brown very cobbly clay loam

Hard bedrock:
24 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Other soils that have more clay in the subsoil
- Other soils that have soft bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Low (about 4.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Not suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The limited available water capacity may cause plants to suffer from moisture stress.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to northern red oak; poorly suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: JJ
Hydric soil: No

3D—Bluemount gravelly silt loam, 15 to 25 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Bluemount and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown gravelly silt loam

Subsoil:
4 to 14 inches—dark yellowish brown silt loam
14 to 24 inches—yellowish brown very cobbly clay loam

Hard bedrock:
24 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Other soils that have more clay in the subsoil
- Other soils that have soft bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Low (about 4.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to northern red oak; poorly suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.

- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: JJ
Hydric soil: No

3E—Bluemount gravelly silt loam, 25 to 45 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Bluemount and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown gravelly silt loam

Subsoil:
4 to 14 inches—dark yellowish brown silt loam
14 to 24 inches—yellowish brown very cobbly clay loam

Hard bedrock:
24 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- Rock outcrop

Similar components:
- Other soils that have more clay in the subsoil
- Other soils that have soft bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Low (about 4.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

- This soil is unsuited to pastureland.

Woodland

Suitability: Poorly suited to loblolly pine, northern red oak, and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: JJ
Hydric soil: No

4B—Braddock fine sandy loam, 2 to 8 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout
- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)

Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- This soil is well suited to septic tank absorption fields.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: O
Hydric soil: No

4C—Braddock fine sandy loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout
- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: O
Hydric soil: No

4D—Braddock fine sandy loam, 15 to 25 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout
- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.

- The low strength interferes with the construction of haul roads and log landings.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: O
Hydric soil: No

5B—Braddock cobbly fine sandy loam, 2 to 8 percent slopes, stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown cobbly fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout

- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to tobacco; not suited to corn, soybeans, and wheat
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- This soil is well suited to septic tank absorption fields.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3s
Virginia soil management group: O
Hydric soil: No

5C—Braddock cobbly fine sandy loam, 8 to 15 percent slopes, stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown cobbly fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout
- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Moderately suited to tobacco; not suited to corn, soybeans, and wheat
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: O
Hydric soil: No

5D—Braddock cobbly fine sandy loam, 15 to 25 percent slopes, stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Fan remnants and high stream terraces
Position on the landform: Linear to convex summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Braddock and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 9 inches—brown cobbly fine sandy loam

Subsoil:
9 to 19 inches—yellowish red clay
19 to 34 inches—red clay
34 to 56 inches—red clay with common yellowish red mottles
56 to 60 inches—yellowish red clay loam with common strong brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- Thurmont and other soils which have less clay throughout
- Other soils that have a thicker solum
- Other soils that have dark red subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: O
Hydric soil: No

6F—Bugley-Littlejoe complex, 45 to 75 percent slopes, very rocky

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Bugley and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Littlejoe and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Bugley

Surface layer:
0 to 3 inches—yellowish brown channery silt loam

Subsoil:
3 to 13 inches—yellowish brown very channery silt loam

Soft bedrock:
13 to 18 inches—moderately cemented graphitic schist bedrock

Hard bedrock:
18 to 80 inches—indurated graphitic schist bedrock

Littlejoe

Surface layer:
0 to 8 inches—dark yellowish brown loam

Subsoil:
8 to 20 inches—strong brown clay loam
20 to 45 inches—red clay

Soft bedrock:
45 to 59 inches—moderately cemented phyllite bedrock

Hard bedrock:
59 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Meadowfield soils, which are similar to the Bugley soil and have hard bedrock between depths of 20 and 40 inches
- Penhook soils, which are similar to the Littlejoe soil and have bedrock at a depth of more than 60 inches

Soil Properties and Qualities

Available water capacity: Bugley—very low (about 1.4 inches); Littlejoe—moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: Bugley—high (about 1.98 in/hr); Littlejoe—moderately high (about 0.20 in/hr)
Depth class: Bugley—shallow (10 to 20 inches); Littlejoe—deep (40 to 60 inches)
Depth to root-restrictive feature: Bugley—10 to 20 inches to bedrock (paralithic); Littlejoe—40 to 60 inches to bedrock (paralithic)
Drainage class: Bugley—somewhat excessively drained; Littlejoe—well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Bugley—low; Littlejoe—moderate
Runoff class: Bugley—very high; Littlejoe—high
Surface fragments: About 3.00 to 15.00 percent subrounded stones

Parent material: Bugley—residuum from graphitic and serecitic schist and phyllite; Littlejoe—residuum from phyllite and schist

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to loblolly pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The high content of stones or boulders on the surface may obstruct the construction of haul roads and log landings.
- The volume of rock fragments on the surface may reduce the traction of wheeled harvest equipment.
- Rock fragments on the surface interfere with the use of site preparation equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.

- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Bugley—JJ; Littlejoe—V
Hydric soil: No

7C—Cliffield-Evard complex, 8 to 15 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Cliffield and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Evard and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Cliffield

Surface layer:
0 to 3 inches—brown very cobbly fine sandy loam

Subsoil:
3 to 6 inches—brown very cobbly loam
6 to 15 inches—brown very cobbly sandy clay loam
15 to 23 inches—yellowish red extremely cobbly sandy clay loam

Hard bedrock:
23 to 80 inches—indurated mica schist bedrock

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Cliffield soil, have soft bedrock between depths of 20 and 40 inches, and have less than 35 percent rock fragments in the subsoil
- Peaks soils, which are similar to the Cliffield soil, have a less developed subsoil, and are over granite or gneiss
- Other soils that are similar to the Cliffield soil and are over mafic parent materials
- Other soils that are similar to the Evard soil and are over mafic parent materials

Soil Properties and Qualities

Available water capacity: Cliffield—very low (about 2.0 inches); Evard—moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Cliffield—moderately deep (20 to 40 inches); Evard—very deep (more than 60 inches)
Depth to root-restrictive feature: Cliffield—20 to 40 inches to bedrock (lithic); Evard—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock outcrops may limit machinery operations.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.

- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Rock fragments make excavation difficult and cutbanks unstable.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Cliffield—JJ; Evard—L
Hydric soils: No

7D—Cliffield-Evard complex, 15 to 25 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Cliffield and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Evard and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Cliffield

Surface layer:
0 to 3 inches—brown very cobbly fine sandy loam

Subsoil:
3 to 6 inches—brown very cobbly loam
6 to 15 inches—brown very cobbly sandy clay loam
15 to 23 inches—yellowish red extremely cobbly sandy clay loam

Hard bedrock:
23 to 80 inches—indurated mica schist bedrock

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Cliffield soil, have soft bedrock between depths of 20 and 40 inches, and have less than 35 percent rock fragments in the subsoil
- Peaks soils, which are similar to the Cliffield soil, have a less developed subsoil, and are over granite or gneiss
- Other soils that are similar to the Cliffield soil and are over mafic parent materials
- Other soils that are similar to the Evard soil and are over mafic parent materials

Soil Properties and Qualities

Available water capacity: Cliffield—very low (about 2.0 inches); Evard—moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Cliffield—moderately deep (20 to 40 inches); Evard—very deep (more than 60 inches)
Depth to root-restrictive feature: Cliffield—20 to 40 inches to bedrock (lithic); Evard—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Rock fragments make excavation difficult and cutbanks unstable.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Cliffield—7s; Evard—6s
Virginia soil management group: Cliffield—JJ; Evard—L
Hydric soils: No

7E—Cliffield-Evard complex, 25 to 45 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Cliffield and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Evard and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Cliffield

Surface layer:
0 to 3 inches—brown very cobbly fine sandy loam

Subsoil:
3 to 6 inches—brown very cobbly loam
6 to 15 inches—brown very cobbly sandy clay loam
15 to 23 inches—yellowish red extremely cobbly sandy clay loam

Hard bedrock:
23 to 80 inches—indurated mica schist bedrock

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Cliffield soil, have soft bedrock between depths of 20 and 40 inches, and have less than 35 percent rock fragments in the subsoil
- Peaks soils, which are similar to the Cliffield soil, have a less developed subsoil, and are over granite or gneiss
- Other soils that are similar to the Cliffield soil and are over mafic parent materials
- Other soils that are similar to the Evard soil and are over mafic parent materials

Soil Properties and Qualities

Available water capacity: Cliffield—very low (about 2.0 inches); Evard—moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Cliffield—moderately deep (20 to 40 inches); Evard—very deep (more than 60 inches)
Depth to root-restrictive feature: Cliffield—20 to 40 inches to bedrock (lithic); Evard—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Rock fragments make excavation difficult and cutbanks unstable.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Cliffield—JJ; Evard—L
Hydric soils: No

7F—Cliffield-Evard complex, 45 to 90 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Cliffield and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Evard and similar soils: Typically 15 percent, ranging from about 10 to 20 percent

Typical Profile

Cliffield

Surface layer:
0 to 3 inches—brown very cobbly fine sandy loam

Subsoil:
3 to 6 inches—brown very cobbly loam
6 to 15 inches—brown very cobbly sandy clay loam
15 to 23 inches—yellowish red extremely cobbly sandy clay loam

Hard bedrock:
23 to 80 inches—indurated mica schist bedrock

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Cliffield soil, have soft bedrock between depths of 20 and 40 inches, and have less than 35 percent rock fragments in the subsoil
- Peaks soils, which are similar to the Cliffield soil, have a less developed subsoil, and are over granite or gneiss
- Other soils that are similar to the Cliffield soil and are over mafic parent materials
- Other soils that are similar to the Evard soil and are over mafic parent materials

Soil Properties and Qualities

Available water capacity: Cliffield—very low (about 2.0 inches); Evard—moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Cliffield—moderately deep (20 to 40 inches); Evard—very deep (more than 60 inches)
Depth to root-restrictive feature: Cliffield—20 to 40 inches to bedrock (lithic); Evard—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.

- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Rock fragments make excavation difficult and cutbanks unstable.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Cliffield—JJ; Evard—L
Hydric soils: No

8B2—Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Clifford and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 7 inches—brown sandy clay loam

Subsoil:
7 to 11 inches—yellowish red clay loam
11 to 54 inches—red clay
54 to 62 inches—red clay loam

Substratum:
62 to 82 inches—strong brown, dark red, and red fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Fairview soils, which have a thinner solum

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and metagrawacke

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Erosion has removed part of the surface soil, and the remaining surface soil is less productive and more difficult to manage.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to northern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.

- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- This soil is well suited to building sites.

Septic tank absorption fields

- This soil is well suited to septic tank absorption fields.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 2e
Virginia soil management group: X
Hydric soil: No

8C2—Clifford sandy clay loam, 8 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Clifford and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 7 inches—brown sandy clay loam

Subsoil:
7 to 11 inches—yellowish red clay loam
11 to 54 inches—red clay
54 to 62 inches—red clay loam

Substratum:
62 to 82 inches—strong brown, dark red, and red fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Fairview soils, which have a thinner solum

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches

Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and metagrawacke

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Erosion has removed part of the surface soil, and the remaining surface soil is less productive and more difficult to manage.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: X
Hydric soil: No

9A—Colvard and Suches soils, 0 to 3 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Flood plains
Position on the landform: Linear toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Colvard and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Suches and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Colvard

Surface layer:
0 to 12 inches—brown fine sandy loam

Substratum:
12 to 43 inches—brown fine sandy loam
43 to 62 inches—dark yellowish brown fine sandy loam

Suches

Surface layer:
0 to 8 inches—brown loam with common strong brown mottles
8 to 12 inches—brown loam with many strong brown mottles

Subsoil:
12 to 33 inches—strong brown clay loam
33 to 41 inches—brown and strong brown loam with grayish brown iron depletions
41 to 54 inches—dark yellowish brown loam with many dark yellowish brown mottles

Substratum:
54 to 60 inches—dark yellowish brown loam with common dark yellowish brown mottles and yellowish red and yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Colvard soil and have more sand throughout
- Other soils that are similar to the Colvard soil and have a water table between depths of 4 and 6 feet

Soil Properties and Qualities

Available water capacity: Colvard—low (about 5.4 inches); Suches—high (about 10.4 inches)
Slowest saturated hydraulic conductivity: Colvard—high (about 1.98 in/hr); Suches—moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Colvard—well drained; Suches—moderately well drained

Depth to seasonal water saturation: Colvard—more than 6 feet; Suches—about 30 to 48 inches
Water table kind: Apparent
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Colvard—negligible; Suches—low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn and soybeans; not suited to tobacco, grass-legume hay, and alfalfa hay
- Flooding may damage crops.

Pastureland

Suitability: Well suited to pasture
- Flooding may damage pastures.

Woodland

Suitability: Well suited to yellow-poplar; moderately suited to eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- Flooding may damage local roads and streets.
- The low strength may cause structural damage to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: Colvard—2s; Suches—2w
Virginia soil management group: Colvard—II; Suches—A
Hydric soils: No

10A—Comus-Elsinboro complex, 0 to 4 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Comus—flood plains; Elsinboro—low terraces
Position on the landform: Linear toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Comus and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Elsinboro and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Comus

Surface layer:
0 to 12 inches—brown fine sandy loam

Subsoil:
12 to 27 inches—brown fine sandy loam
27 to 47 inches—dark yellowish brown fine sandy loam

Substratum:
47 to 56 inches—dark yellowish brown loamy sand
56 to 62 inches—dark yellowish brown, pale brown, and light brownish gray loamy sand

Elsinboro

Surface layer:
0 to 11 inches—brown loam

Subsoil:
11 to 25 inches—strong brown clay loam
25 to 38 inches—strong brown sandy clay loam

Substratum:
38 to 60 inches—brown sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Comus soil and have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: Comus—high (about 9.8 inches); Elsinboro—moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Comus—moderately high (about 0.60 in/hr); Elsinboro—moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches

Drainage class: Well drained
Depth to seasonal water saturation: Comus—more than 6 feet; Elsinboro—more than 60 inches
Water table kind: Apparent
Flooding hazard: Comus—occasional; Elsinboro—rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
• Flooding may damage crops.

Pastureland

Suitability: Well suited to pasture
• Flooding may damage pastures.

Woodland

Suitability: Well suited to loblolly pine and northern red oak; moderately suited to yellow-poplar
• Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
• Flooding may damage haul roads.
• Flooding restricts the safe use of roads by log trucks.
• The low strength interferes with the construction of haul roads and log landings.
• The low strength may create unsafe conditions for log trucks.

Building sites

• Flooding is a limitation affecting building site development.
• The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

• Flooding is a limitation affecting septic tank absorption fields.

Local roads and streets

• Flooding may damage local roads and streets.
• These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: Comus—1; Elsinboro—2e
Virginia soil management group: Comus—A; Elsinboro—L
Hydric soils: No

11B—Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave toeslopes

Map Unit Composition

Dillard and similar soils: Typically 75 percent, ranging from about 70 to 80 percent

Typical Profile

Surface layer:
0 to 10 inches—yellowish brown fine sandy loam

Subsoil:
10 to 19 inches—brownish yellow sandy clay loam
19 to 24 inches—brownish yellow sandy clay loam with strong brown masses of oxidized iron
24 to 30 inches—light olive brown sandy clay loam with yellowish red masses of oxidized iron
30 to 48 inches—light olive brown clay with red and yellowish red masses of oxidized iron and light brownish gray iron depletions
48 to 53 inches—light brownish gray clay loam with reddish yellow and strong brown masses of oxidized iron

Substratum:
53 to 62 inches—light gray clay loam with common grayish brown mottles and red and light yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Moderate (about 8.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay

- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to yellow-poplar and eastern white pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: G
Hydric soil: No

12C—Dillard fine sandy loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave footslopes and toeslopes

Map Unit Composition

Dillard and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 10 inches—yellowish brown fine sandy loam

Subsoil:
10 to 19 inches—brownish yellow sandy clay loam
19 to 24 inches—brownish yellow sandy clay loam with strong brown masses of oxidized iron
24 to 30 inches—light olive brown sandy clay loam with yellowish red masses of oxidized iron
30 to 48 inches—light olive brown clay with red and yellowish red masses of oxidized iron and light brownish gray iron depletions
48 to 53 inches—light brownish gray clay loam with reddish yellow and strong brown masses of oxidized iron

Substratum:
53 to 62 inches—light gray clay loam with common grayish brown mottles and red and light yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Moderate (about 8.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: G
Hydric soil: No

13B—Dillard-Tugglesgap complex, 2 to 8 percent slopes, rarely flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Dillard and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Tugglesgap and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Dillard

Surface layer:
0 to 10 inches—yellowish brown fine sandy loam

Subsoil:
10 to 19 inches—brownish yellow sandy clay loam
19 to 24 inches—brownish yellow sandy clay loam with strong brown masses of oxidized iron
24 to 30 inches—light olive brown sandy clay loam with yellowish red masses of oxidized iron
30 to 48 inches—light olive brown clay with red and yellowish red masses of oxidized iron and light brownish gray iron depletions
48 to 53 inches—light brownish gray clay loam with reddish yellow and strong brown masses of oxidized iron

Substratum:
53 to 62 inches—light gray clay loam with common grayish brown mottles and red and light yellowish brown masses of oxidized iron

Tugglesgap

Surface layer:
0 to 7 inches—very dark gray loam

Subsoil:
7 to 12 inches—light olive brown very cobbly loam with yellowish brown and strong brown masses of oxidized iron
12 to 21 inches—light yellowish brown very gravelly clay loam with light brownish gray iron depletions and reddish yellow masses of oxidized iron
21 to 32 inches—grayish brown sandy clay loam with light yellowish brown and reddish yellow masses of oxidized iron
32 to 35 inches—gray sandy clay loam with greenish gray and reddish yellow masses of oxidized iron

Substratum:
35 to 50 inches—olive fine sandy loam
50 to 64 inches—dark yellowish brown extremely paragravelly fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Dillard—moderate (about 8.4 inches); Tugglesgap—moderate (about 6.1 inches)
Slowest saturated hydraulic conductivity: Dillard—moderately high (about 0.20 in/hr); Tugglesgap—moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Dillard—moderately well drained; Tugglesgap—somewhat poorly drained
Depth to seasonal water saturation: Dillard—about 24 to 36 inches; Tugglesgap—about 6 to 18 inches

Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Dillard—moderate; Tugglesgap—low
Runoff class: Dillard—medium; Tugglesgap—very high
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: Dillard—2e; Tugglesgap—4w
Virginia soil management group: Dillard—G; Tugglesgap—CC
Hydric soils: No

14C—Dillard-Tugglesgap complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave footslopes and toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Dillard and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Tugglesgap and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Dillard

Surface layer:
0 to 10 inches—yellowish brown fine sandy loam

Subsoil:
10 to 19 inches—brownish yellow sandy clay loam
19 to 24 inches—brownish yellow sandy clay loam with strong brown masses of oxidized iron
24 to 30 inches—light olive brown sandy clay loam with yellowish red masses of oxidized iron
30 to 48 inches—light olive brown clay with red and yellowish red masses of oxidized iron and light brownish gray iron depletions
48 to 53 inches—light brownish gray clay loam with reddish yellow and strong brown masses of oxidized iron

Substratum:
53 to 62 inches—light gray clay loam with common grayish brown mottles and red and light yellowish brown masses of oxidized iron

Tugglesgap

Surface layer:
0 to 7 inches—very dark gray loam

Subsoil:
7 to 12 inches—light olive brown very cobbly loam with yellowish brown and strong brown masses of oxidized iron
12 to 21 inches—light yellowish brown very gravelly clay loam with light brownish gray iron depletions and reddish yellow masses of oxidized iron
21 to 32 inches—grayish brown sandy clay loam with light yellowish brown and reddish yellow masses of oxidized iron
32 to 35 inches—gray sandy clay loam with greenish gray and reddish yellow masses of oxidized iron

Substratum:
35 to 50 inches—olive fine sandy loam
50 to 64 inches—dark yellowish brown extremely paragravelly fine sandy loam

Minor Components

Dissimilar components:
• None identified

Similar components:
• None identified

Soil Properties and Qualities

Available water capacity: Dillard—moderate (about 8.4 inches); Tugglesgap—moderate (about 6.1 inches)
Slowest saturated hydraulic conductivity: Dillard—moderately high (about 0.20 in/hr); Tugglesgap—moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Dillard—moderately well drained; Tugglesgap—somewhat poorly drained
Depth to seasonal water saturation: Dillard—about 24 to 36 inches; Tugglesgap—about 6 to 18 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Dillard—moderate; Tugglesgap—low
Runoff class: Dillard—medium; Tugglesgap—very high
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
• The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
• The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
• The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to yellow-poplar and eastern white pine
• Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
• The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
• The slope may restrict the use of some mechanical planting equipment.
• Rock fragments restrict the use of equipment during site preparation for planting or seeding.

- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Dillard—3e; Tugglesgap—4w
Virginia soil management group: Dillard—G; Tugglesgap—CC
Hydric soils: No

15B—Dillsboro cobbly loam, 2 to 8 percent slopes, very stony, rarely flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave toeslopes

Map Unit Composition

Dillsboro and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 10 inches—dark brown cobbly loam

Subsoil:
10 to 13 inches—clay
13 to 21 inches—yellowish red clay
21 to 39 inches—yellowish red clay with common yellowish brown mottles

39 to 45 inches—yellowish brown clay loam with common yellowish red mottles
45 to 60 inches—yellowish brown loam with common yellowish red mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Moderate (about 7.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Not suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- Flooding is a limitation affecting building site development.

Septic tank absorption fields

- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- This soil is well suited to septic tank absorption fields.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: O
Hydric soil: No

16C—Dillsboro loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Alluvial fans and stream terraces
Position on the landform: Linear to concave footslopes and toeslopes

Map Unit Composition

Dillsboro and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 10 inches—dark brown loam

Subsoil:
10 to 13 inches—clay
13 to 21 inches—yellowish red clay
21 to 39 inches—yellowish red clay with common yellowish brown mottles
39 to 45 inches—yellowish brown clay loam with common yellowish red mottles
45 to 60 inches—yellowish brown loam with common yellowish red mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Moderate (about 7.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat; moderately suited to corn and soybeans; not suited to tobacco

- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Not suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: O
Hydric soil: No

17B—Evard-Cowee complex, 2 to 8 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Cowee and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium

Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, and wheat; moderately suited to alfalfa hay; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to chestnut oak and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.

Local roads and streets

- These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: Evard—2e; Cowee—3s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

17C—Evard-Cowee complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Cowee and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat; moderately suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Evard—3e; Cowee—4s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

17D—Evard-Cowee complex, 15 to 25 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Cowee and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Evard—4e; Cowee—6s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

17E—Evard-Cowee complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Cowee and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

18B—Evard-Cowee complex, 2 to 8 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Cowee and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Evard—medium; Cowee—high
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to chestnut oak and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential

negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.

Local roads and streets

- These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

18C—Evard-Cowee complex, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Cowee and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Evard—medium; Cowee—high
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

18D—Evard-Cowee complex, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Cowee and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low

Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

18E—Evard-Cowee complex, 25 to 45 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Evard and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Cowee and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Evard

Surface layer:
0 to 4 inches—dark brown gravelly fine sandy loam

Subsoil:
4 to 7 inches—yellowish red gravelly loam
7 to 14 inches—yellowish red gravelly clay loam
14 to 28 inches—red gravelly clay loam
28 to 33 inches—red gravelly fine sandy loam

Substratum:
33 to 49 inches—red gravelly fine sandy loam
49 to 72 inches—yellowish red gravelly fine sandy loam

Cowee

Surface layer:
0 to 3 inches—dark brown cobbly loam

Subsoil:
3 to 6 inches—yellowish red gravelly loam
6 to 18 inches—red sandy clay loam
18 to 23 inches—red fine sandy loam

Substratum:
23 to 30 inches—yellowish red gravelly fine sandy loam

Soft bedrock:
30 to 43 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
43 to 80 inches—indurated mica gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the Evard and Cowee soils and have browner colors
- Other soils that are similar to the Evard soil and have a thicker solum
- Other soils that are similar to the Evard soil and have a less developed subsoil

Soil Properties and Qualities

Available water capacity: Evard—moderate (about 8.3 inches); Cowee—low (about 4.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Evard—very deep (more than 60 inches); Cowee—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Evard—more than 60 inches; Cowee—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Evard—L; Cowee—N
Hydric soils: No

19B2—Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Fairview and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown sandy clay loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Erosion has removed part of the surface soil, and the remaining surface soil is less productive and more difficult to manage.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- This soil is well suited to septic tank absorption fields.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 2e
Virginia soil management group: X
Hydric soil: No

19C2—Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Fairview and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown sandy clay loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Erosion has removed part of the surface soil, and the remaining surface soil is less productive and more difficult to manage.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential

negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: X
Hydric soil: No

19D2—Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Fairview and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown sandy clay loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat; moderately suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Erosion has removed part of the surface soil, and the remaining surface soil is less productive and more difficult to manage.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to yellow-poplar; poorly suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: X
Hydric soil: No

20B—Fairview cobbly fine sandy loam, 2 to 8 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Fairview and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown cobbly fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: Low
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- This soil is well suited to septic tank absorption fields.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: X
Hydric soil: No

20C—Fairview cobbly fine sandy loam, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Fairview and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—brown cobbly fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: X
Hydric soil: No

20D—Fairview cobbly fine sandy loam, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Fairview and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 4 inches—brown cobbly fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which have a thicker solum
- Rhodhiss soils, which have less clay throughout

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)

Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

- This soil is unsuited to pastureland.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: X
Hydric soil: No

21E—Fairview-Stott Knob complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Fairview and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Stott Knob and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Fairview

Surface layer:
0 to 4 inches—brown fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which are similar to the Fairview soil and have a thicker solum
- Rhodhiss soils, which are similar to the Fairview soil and have less clay throughout
- Woolwine soils, which are similar to the Stott Knob soil and have more clay throughout

Soil Properties and Qualities

Available water capacity: Fairview—moderate (about 7.5 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Fairview—very deep (more than 60 inches); Stott Knob—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Fairview—more than 60 inches; Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Fairview—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to yellow-poplar; poorly suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Fairview—X; Stott Knob—N
Hydric soils: No

22E—Fairview-Stott Knob complex, 25 to 45 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Fairview and similar soils: Typically 75 percent, ranging from about 70 to 80 percent
Stott Knob and similar soils: Typically 15 percent, ranging from about 10 to 20 percent

Typical Profile

Fairview

Surface layer:
0 to 4 inches—brown cobbly fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown cobbly loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Clifford soils, which are similar to the Fairview soil and have a thicker solum
- Rhodhiss soils, which are similar to the Fairview soil and have less clay throughout
- Woolwine soils, which are similar to the Stott Knob soil and have more clay throughout

Soil Properties and Qualities

Available water capacity: Fairview—moderate (about 7.5 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Fairview—very deep (more than 60 inches); Stott Knob—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Fairview—more than 60 inches; Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Fairview—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to yellow-poplar; poorly suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Fairview—X; Stott Knob—N
Hydric soils: No

23C—Fairystone-Littlejoe complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Fairystone and similar soils: Typically 75 percent, ranging from about 70 to 80 percent
Littlejoe and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Fairystone

Surface layer:
0 to 5 inches—brown channery loam

Subsoil:
5 to 9 inches—yellowish red channery loam
9 to 17 inches—red very channery clay

Substratum:
17 to 24 inches—red extremely channery clay loam

Soft bedrock:
24 to 31 inches—moderately cemented schist bedrock

Hard bedrock:
31 to 80 inches—indurated schist bedrock

Littlejoe

Surface layer:
0 to 8 inches—dark yellowish brown loam

Subsoil:
8 to 20 inches—strong brown clay loam
20 to 45 inches—red clay

Soft bedrock:
45 to 59 inches—moderately cemented phyllite bedrock

Hard bedrock:
59 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Penhook soils, which are similar to the Littlejoe soil and have bedrock at a depth of more than 60 inches
- Other soils that are similar to the Strawfield soil and have more than 35 percent rock fragments in the subsoil

Soil Properties and Qualities

Available water capacity: Fairystone—low (about 4.1 inches); Littlejoe—moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: Fairystone—moderately high (about 0.57 in/hr); Littlejoe—moderately high (about 0.20 in/hr)
Depth class: Fairystone—moderately deep (20 to 40 inches); Littlejoe—deep (40 to 60 inches)
Depth to root-restrictive feature: Fairystone—20 to 40 inches to bedrock (paralithic); Littlejoe—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Fairystone—medium; Littlejoe—high
Surface fragments: None
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: Fairystone—X; Littlejoe—V
Hydric soils: No

24D—Fairystone-Littlejoe complex, 15 to 25 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Fairystone and similar soils: Typically 75 percent, ranging from about 70 to 80 percent
Littlejoe and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Fairystone

Surface layer:
0 to 5 inches—brown channery loam

Subsoil:
5 to 9 inches—yellowish red channery loam
9 to 17 inches—red very channery clay

Substratum:
17 to 24 inches—red extremely channery clay loam

Soft bedrock:
24 to 31 inches—moderately cemented schist bedrock

Hard bedrock:
31 to 80 inches—indurated schist bedrock

Littlejoe

Surface layer:
0 to 8 inches—dark yellowish brown loam

Subsoil:
8 to 20 inches—strong brown clay loam
20 to 45 inches—red clay

Soft bedrock:
45 to 59 inches—moderately cemented phyllite bedrock

Hard bedrock:
59 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Penhook soils, which are similar to the Littlejoe soil and have bedrock at a depth of more than 60 inches
- Other soils that are similar to Strawfield soils and have more than 35 percent rock fragments in the subsoil

Soil Properties and Qualities

Available water capacity: Fairystone—low (about 4.1 inches); Littlejoe—moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: Fairystone—moderately high (about 0.57 in/hr); Littlejoe—moderately high (about 0.20 in/hr)
Depth class: Fairystone—moderately deep (20 to 40 inches); Littlejoe—deep (40 to 60 inches)
Depth to root-restrictive feature: Fairystone—20 to 40 inches to bedrock (paralithic); Littlejoe—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate

Runoff class: Fairystone—medium; Littlejoe—high
Surface fragments: About 0.01 to 0.10 percent subrounded stones
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

Suitability: Not suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Fairystone—4e; Littlejoe—6s
Virginia soil management group: Fairystone—X; Littlejoe—V
Hydric soils: No

25E—Fairystone-Littlejoe complex, 25 to 45 percent slopes, rocky

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Fairystone and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Littlejoe and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Fairystone

Surface layer:
0 to 5 inches—brown channery loam

Subsoil:
5 to 9 inches—yellowish red channery loam
9 to 17 inches—red very channery clay

Substratum:
17 to 24 inches—red extremely channery clay loam

Soft bedrock:
24 to 31 inches—moderately cemented schist bedrock

Hard bedrock:
31 to 80 inches—indurated schist bedrock

Littlejoe

Surface layer:
0 to 8 inches—dark yellowish brown loam

Subsoil:
8 to 20 inches—strong brown clay loam
20 to 45 inches—red clay

Soft bedrock:
45 to 59 inches—moderately cemented phyllite bedrock

Hard bedrock:
59 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Penhook soils, which are similar to the Littlejoe soil and have bedrock at a depth of more than 60 inches
- Other soils that are similar to Strawfield soils and have more than 35 percent rock fragments in the subsoil

Soil Properties and Qualities

Available water capacity: Fairystone—low (about 4.1 inches); Littlejoe—moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: Fairystone—moderately high (about 0.57 in/hr); Littlejoe—moderately high (about 0.20 in/hr)
Depth class: Fairystone—moderately deep (20 to 40 inches); Littlejoe—deep (40 to 60 inches)
Depth to root-restrictive feature: Fairystone—20 to 40 inches to bedrock (paralithic); Littlejoe—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Fairystone—medium; Littlejoe—high
Surface fragments: About 3.00 to 15.00 percent subrounded stones
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The high content of stones or boulders on the surface may obstruct the construction of haul roads and log landings.

- The volume of rock fragments on the surface may reduce the traction of wheeled harvest equipment.
- Rock fragments on the surface interfere with the use of site preparation equipment.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Fairystone—X; Littlejoe—V
Hydric soils: No

26A—French loam, 0 to 3 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Flood plains
Position on the landform: Linear toeslopes

Map Unit Composition

French and similar soils: Typically 85 percent, ranging from about 75 to 85 percent

Typical Profile

Surface layer:
0 to 10 inches—dark yellowish brown loam

Subsoil:
10 to 19 inches—yellowish brown loam
19 to 24 inches—yellowish brown loam with light gray iron depletions

Substratum:
24 to 28 inches—yellowish brown sandy loam with light gray iron depletions
28 to 36 inches—gray loamy sand with reddish yellow masses of oxidized iron
36 to 60 inches—light gray extremely gravelly loamy sand

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that do not have a sandy substratum
- Other soils that are somewhat poorly drained or well drained

Soil Properties and Qualities

Available water capacity: Low (about 4.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: 20 to 40 inches to strongly contrasting textural stratification
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 12 to 30 inches
Water table kind: Apparent
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- Excessive permeability increases the risk of ground-water contamination.
- Flooding may damage crops.

Pastureland

Suitability: Well suited to pasture
- Flooding may damage pastures.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on

streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: A
Hydric soil: No

27A—French-Dellwood complex, 0 to 4 percent slopes, frequently flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Flood plains
Position on the landform: Linear toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

French and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Dellwood and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

French

Surface layer:
0 to 10 inches—dark yellowish brown loam

Subsoil:
10 to 19 inches—yellowish brown loam
19 to 24 inches—yellowish brown loam with light gray iron depletions

Substratum:
24 to 28 inches—yellowish brown sandy loam with light gray iron depletions
28 to 36 inches—gray loamy sand with reddish yellow masses of oxidized iron
36 to 60 inches—light gray extremely gravelly loamy sand

Dellwood

Surface layer:
0 to 8 inches—very dark grayish brown cobbly sandy loam
8 to 14 inches—dark yellowish brown very cobbly sandy loam

Subsoil:
14 to 18 inches—dark yellowish brown cobbly sandy loam

Substratum:
18 to 60 inches—brown very cobbly loamy sand

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that are similar to the French soil and do not have a sandy substratum
- Other soils that are similar to the French and Dellwood soils and are somewhat poorly drained or well drained

Soil Properties and Qualities

Available water capacity: French—low (about 4.6 inches); Dellwood—very low (about 2.9 inches)
Slowest saturated hydraulic conductivity: French—moderately high (about 0.57 in/hr); Dellwood—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: French—20 to 40 inches to strongly contrasting textural stratification; Dellwood—more than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: French—about 12 to 30 inches; Dellwood—about 24 to 48 inches
Water table kind: Apparent
Flooding hazard: French—frequent; Dellwood—occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: French—low; Dellwood—very low
Surface fragments: French—none; Dellwood—about 0.10 to 3.00 percent subangular stones
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- Excessive permeability increases the risk of ground-water contamination.
- Frequent flooding restricts the use of winter grain crops.

- Flooding may damage crops.
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland

Suitability: Well suited to pasture
- Flooding may damage pastures.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if protected from flooding or not frequently flooded during the growing season
Land capability class: French—3w; Dellwood—6s
Virginia soil management group: French—A; Dellwood—CC
Hydric soils: No

28D—Goblintown-Penhook complex, 15 to 25 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Goblintown and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Penhook and similar soils: Typically 45 percent, ranging from about 40 to 50 percent

Typical Profile

Goblintown

Surface layer:
0 to 6 inches—black loam

Subsoil:
6 to 14 inches—very dark gray clay
14 to 20 inches—very dark gray channery clay loam with many black mottles

Substratum:
20 to 37 inches—very dark gray very channery loam with common very dark gray mottles

Soft bedrock:
37 to 80 inches—weakly cemented graphitic schist bedrock

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches
- Strawfield soils, which are similar to the the Goblintown soil and have hard bedrock between depths of 20 and 40 inches over phyllite

Soil Properties and Qualities

Available water capacity: Goblintown—moderate (about 6.3 inches); Penhook—moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Goblintown—moderately deep (20 to 40 inches); Penhook—very deep (more than 60 inches)
Depth to root-restrictive feature: Goblintown—20 to 40 inches to bedrock (paralithic); Penhook—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Goblintown—residuum from graphitic schist and graphitic phyllite; Penhook—residuum from phyllite and schist

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: Goblintown—V; Penhook—X
Hydric soils: No

28E—Goblintown-Penhook complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Goblintown and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Penhook and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Goblintown

Surface layer:
0 to 6 inches—black loam

Subsoil:
6 to 14 inches—very dark gray clay
14 to 20 inches—very dark gray channery clay loam with many black mottles

Substratum:
20 to 37 inches—very dark gray very channery loam with common very dark gray mottles

Soft bedrock:
37 to 80 inches—weakly cemented graphitic schist bedrock

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches
- Strawfield soils, which are similar to the Goblintown soil and have hard bedrock between depths of 20 and 40 inches over phyllite

Soil Properties and Qualities

Available water capacity: Goblintown—moderate (about 6.3 inches); Penhook—moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Goblintown—moderately deep (20 to 40 inches); Penhook—very deep (more than 60 inches)
Depth to root-restrictive feature: Goblintown—20 to 40 inches to bedrock (paralithic); Penhook—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Goblintown—residuum from graphitic schist and graphitic phyllite; Penhook—residuum from phyllite and schist

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A

timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Goblintown—V; Penhook—X
Hydric soils: No

29A—Hatboro loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Flood plains
Position on the landform: Linear toeslopes

Map Unit Composition

Hatboro and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 8 inches—dark grayish brown loam with yellowish brown masses of oxidized iron

Subsoil:
8 to 23 inches—light brownish gray sandy clay loam with yellowish brown masses of oxidized iron
23 to 41 inches—light brownish gray sandy clay loam with gray iron depletions and strong brown and yellowish brown masses of oxidized iron

Substratum:
41 to 60 inches—gray very gravelly sandy clay loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Other soils that have more clay throughout; in low stream terrace positions
- Other soils that are somewhat poorly drained

Soil Properties and Qualities

Available water capacity: Moderate (about 7.2 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: 40 to 80 inches to strongly contrasting textural stratification
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: Frequent
Depth of ponding: 0.0 to 0.5 foot
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- Flooding may damage pastures.
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland

Suitability: Well suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.

- Flooding may damage haul roads.
- Flooding and ponding restrict the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- Flooding and ponding are limitations affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Flooding and ponding are limitations affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- Flooding may damage local roads and streets.
- Ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if protected from flooding or not frequently flooded during the growing season
Land capability class: 6w
Virginia soil management group: HH
Hydric soil: Yes

30F—Hickoryknob-Rhodhiss complex, 45 to 75 percent slopes, rocky

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Hickoryknob and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Rhodhiss and similar soils: Typically 15 percent, ranging from about 10 to 20 percent

Typical Profile

Hickoryknob

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 4 inches—brown loam

Subsoil:
4 to 13 inches—brown channery loam
13 to 23 inches—yellowish red channery clay loam

Soft bedrock:
23 to 36 inches—moderately cemented mica schist bedrock

Hard bedrock:
36 to 80 inches—indurated mica schist bedrock

Rhodhiss

Surface layer:
0 to 3 inches—brown loam

Subsoil:
3 to 5 inches—yellowish brown loam
5 to 20 inches—strong brown clay loam
20 to 30 inches—red clay loam
30 to 38 inches—yellowish red loam

Substratum:
38 to 60 inches—brownish yellow sandy loam
60 to 80 inches—yellowish red, red, brownish yellow, and strong brown loamy sand

Minor Components

Dissimilar components:
- None identified

Similar components:
- Stott Knob soils, which are similar to the Hickoryknob soil and have soft bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Hickoryknob—low (about 3.2 inches); Rhodhiss—moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Hickoryknob—moderately deep (20 to 40 inches); Rhodhiss—very deep (more than 60 inches)
Depth to root-restrictive feature: Hickoryknob—20 to 40 inches to bedrock (paralithic); Rhodhiss—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- The low strength may cause structural damage to local roads and streets.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Hickoryknob—N; Rhodhiss—X
Hydric soils: No

31C—Meadowfield-Stott Knob complex, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Meadowfield and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Stott Knob and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Meadowfield

Surface layer:
0 to 4 inches—dark yellowish brown very gravelly loam

Subsoil:
4 to 8 inches—strong brown very gravelly loam
8 to 22 inches—yellowish red very gravelly clay loam

Substratum:
22 to 28 inches—red, brown, brownish yellow, and yellowish red extremely gravelly clay loam

Hard bedrock:
28 to 80 inches—indurated schist bedrock

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches

Similar components:
- Hickoryknob soils, which are similar to the Stott Knob soil and have hard bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Meadowfield—very low (about 2.7 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Meadowfield—20 to 40 inches to bedrock (lithic); Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet

Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Meadowfield—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Meadowfield—JJ; Stott Knob—N
Hydric soils: No

31D—Meadowfield-Stott Knob complex, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Meadowfield and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Stott Knob and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Meadowfield

Surface layer:
0 to 4 inches—dark yellowish brown very gravelly loam

Subsoil:
4 to 8 inches—strong brown very gravelly loam
8 to 22 inches—yellowish red very gravelly clay loam

Substratum:
22 to 28 inches—red, brown, brownish yellow, and yellowish red extremely gravelly clay loam

Hard bedrock:
28 to 80 inches—indurated schist bedrock

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches

Similar components:
- Hickoryknob soils, which are similar to the Stott Knob soil and have hard bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Meadowfield—very low (about 2.7 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Meadowfield—20 to 40 inches to bedrock (lithic); Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Meadowfield—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.

- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Meadowfield—JJ; Stott Knob—N
Hydric soils: No

32E—Meadowfield-Stott Knob complex, 25 to 45 percent slopes, very rocky

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Meadowfield and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Stott Knob and similar soils: Typically 15 percent, ranging from about 10 to 20 percent

Typical Profile

Meadowfield

Surface layer:
0 to 4 inches—dark yellowish brown very gravelly loam

Subsoil:
4 to 8 inches—strong brown very gravelly loam
8 to 22 inches—yellowish red very gravelly clay loam

Substratum:
22 to 28 inches—red, brown, brownish yellow, and yellowish red extremely gravelly clay loam

Hard bedrock:
28 to 80 inches—indurated schist bedrock

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches

Similar components:
- Hickoryknob soils, which are similar to the Stott Knob soil and have hard bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Meadowfield—very low (about 2.7 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Meadowfield—20 to 40 inches to bedrock (lithic); Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Meadowfield—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Meadowfield—JJ; Stott Knob—N
Hydric soils: No

32F—Meadowfield-Stott Knob complex, 45 to 90 percent slopes, very rocky

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Meadowfield and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Stott Knob and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Meadowfield

Surface layer:
0 to 4 inches—dark yellowish brown very gravelly loam

Subsoil:
4 to 8 inches—strong brown very gravelly loam
8 to 22 inches—yellowish red very gravelly clay loam

Substratum:
22 to 28 inches—red, brown, brownish yellow, and yellowish red extremely gravelly clay loam

Hard bedrock:
28 to 80 inches—indurated schist bedrock

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches

Similar components:
- Hickoryknob soils, which are similar to the Stott Knob soil and have hard bedrock between depths of 20 and 40 inches

Soil Properties and Qualities

Available water capacity: Meadowfield—very low (about 2.7 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Meadowfield—20 to 40 inches to bedrock (lithic); Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Meadowfield—residuum from mica schist and mica gneiss; Stott Knob—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Meadowfield—JJ; Stott Knob—N
Hydric soils: No

33B—Minnieville loam, 2 to 8 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Minnieville and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which have browner colors
- Other soils that have dark red subsoils
- Other soils that have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)

Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- This soil is well suited to septic tank absorption fields.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: N
Hydric soil: No

33C—Minnieville loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Minnieville and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which have browner colors
- Other soils that have dark red subsoils
- Other soils that have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to chestnut oak; moderately suited to loblolly pine and northern red oak; poorly suited to yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: N
Hydric soil: No

33D—Minnieville loam, 15 to 25 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Minnieville and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam

8 to 53 inches—red clay
53 to 81 inches—red clay loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which have browner colors
- Other soils that have dark red subsoils
- Other soils that have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to chestnut oak; moderately suited to loblolly pine and northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.

- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: N
Hydric soil: No

33E—Minnieville loam, 25 to 45 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Minnieville and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which have browner colors
- Other soils that have dark red subsoils
- Other soils that have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.4 inches)

Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

- This soil is unsuited to pastureland.

Woodland

Suitability: Moderately suited to loblolly pine, northern red oak, and chestnut oak; poorly suited to yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland

Land capability class: 7e
Virginia soil management group: N
Hydric soil: No

34B—Minnieville-Redbrush complex, 2 to 8 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Minnieville and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Redbrush and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Minnieville

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Redbrush

Surface layer:
0 to 5 inches—very dark grayish brown loam with dark brown iron-manganese concretions

Subsoil:
5 to 12 inches—olive brown loam with dark brown iron-manganese concretions
12 to 23 inches—olive brown clay

Substratum:
23 to 26 inches—olive brown, light olive brown, and very dark grayish brown silt loam and clay
26 to 30 inches—olive brown, light olive brown, and very dark grayish brown silt loam

Soft bedrock:
30 to 38 inches—moderately cemented amphibolite bedrock

Hard bedrock:
38 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which are similar to the Minnieville soil and have browner colors

- Other soils that are similar to the Minnieville soil and have dark red subsoils
- Other soils that are similar to the Minnieville soil and have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Minnieville—moderate (about 6.4 inches); Redbrush—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Minnieville—moderately high (about 0.57 in/hr); Redbrush—low (about 0.00 in/hr)
Depth class: Minnieville—very deep (more than 60 inches); Redbrush—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Minnieville—more than 60 inches; Redbrush—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Minnieville—moderate; Redbrush—high
Runoff class: Minnieville—medium; Redbrush—very high
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites

- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- These soils are well suited to septic tank absorption fields.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: Minnieville—N; Redbrush—Y
Hydric soils: No

34C—Minnieville-Redbrush complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Minnieville and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Redbrush and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Minnieville

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Redbrush

Surface layer:
0 to 5 inches—very dark grayish brown loam with dark brown iron-manganese concretions

Subsoil:
5 to 12 inches—olive brown loam with dark brown iron-manganese concretions
12 to 23 inches—olive brown clay

Substratum:
23 to 26 inches—olive brown, light olive brown, and very dark grayish brown silt loam and clay
26 to 30 inches—olive brown, light olive brown, and very dark grayish brown silt loam

Soft bedrock:
30 to 38 inches—moderately cemented amphibolite bedrock

Hard bedrock:
38 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which are similar to the Minnieville soil and have browner colors
- Other soils that are similar to the Minnieville soil and have dark red subsoils
- Other soils that are similar to the Minnieville soil and have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Minnieville—moderate (about 6.4 inches); Redbrush—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Minnieville—moderately high (about 0.57 in/hr); Redbrush—low (about 0.00 in/hr)
Depth class: Minnieville—very deep (more than 60 inches); Redbrush—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Minnieville—more than 60 inches; Redbrush—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Minnieville—moderate; Redbrush—high
Runoff class: Minnieville—medium; Redbrush—very high
Surface fragments: None
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to chestnut oak; moderately suited to loblolly pine and northern red oak; poorly suited to yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: Minnieville—N; Redbrush—Y
Hydric soils: No

34D—Minnieville-Redbrush complex, 15 to 25 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Minnieville and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Redbrush and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Minnieville

Surface layer:
0 to 4 inches—reddish brown loam

Subsoil:
4 to 8 inches—dark red clay loam
8 to 53 inches—red clay
53 to 81 inches—red clay loam

Redbrush

Surface layer:
0 to 5 inches—very dark grayish brown loam with dark brown iron-manganese concretions

Subsoil:
5 to 12 inches—olive brown loam with dark brown iron-manganese concretions
12 to 23 inches—olive brown clay

Substratum:
23 to 26 inches—olive brown, light olive brown, and very dark grayish brown silt loam and clay
26 to 30 inches—olive brown, light olive brown, and very dark grayish brown silt loam

Soft bedrock:
30 to 38 inches—moderately cemented amphibolite bedrock

Hard bedrock:
38 to 80 inches—indurated amphibolite bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Orenda soils, which are similar to the Minnieville soil and have browner colors
- Other soils that are similar to the Minnieville soil and have dark red subsoils
- Other soils that are similar to the Minnieville soil and have more weathered subsoils

Soil Properties and Qualities

Available water capacity: Minnieville—moderate (about 6.4 inches); Redbrush—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Minnieville—moderately high (about 0.57 in/hr); Redbrush—low (about 0.00 in/hr)
Depth class: Minnieville—very deep (more than 60 inches); Redbrush—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Minnieville—more than 60 inches; Redbrush—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Minnieville—moderate; Redbrush—high
Runoff class: Minnieville—high; Redbrush—very high
Surface fragments: None

Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to chestnut oak; moderately suited to loblolly pine and northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: Minnieville—N; Redbrush—Y
Hydric soils: No

35A—Nikwasi-Dellwood complex, 0 to 4 percent slopes, frequently flooded

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Flood plains
Position on the landform: Linear toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Nikwasi and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Dellwood and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Nikwasi

Surface layer:
0 to 4 inches—very dark grayish brown loam
4 to 10 inches—very dark gray loam with yellowish red masses of oxidized iron
10 to 24 inches—black mucky loam

Subsoil:
24 to 28 inches—black very gravelly sandy loam with very dark grayish brown masses of oxidized iron

Substratum:
28 to 33 inches—dark grayish brown very cobbly loamy sand
33 to 60 inches—grayish brown extremely cobbly loamy sand

Dellwood

Surface layer:
0 to 8 inches—very dark grayish brown cobbly sandy loam
8 to 14 inches—dark yellowish brown very cobbly sandy loam

Subsoil:
14 to 18 inches—dark yellowish brown cobbly sandy loam

Substratum:
18 to 60 inches—brown very cobbly loamy sand

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Nikwasi—low (about 4.8 inches); Dellwood—very low (about 2.9 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: Nikwasi—24 to 40 inches to strongly contrasting textural stratification; Dellwood—more than 60 inches
Drainage class: Nikwasi—very poorly drained; Dellwood—moderately well drained
Depth to seasonal water saturation: Nikwasi—about 0 to 12 inches; Dellwood—about 24 to 48 inches
Water table kind: Apparent
Flooding hazard: Nikwasi—frequent; Dellwood—occasional
Ponding hazard: Nikwasi—frequent; Dellwood—none
Depth of ponding: 0.0 to 0.5 foot
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: Nikwasi—none; Dellwood—about 0.10 to 3.00 percent subangular stones
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding and ponding restrict the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- Flooding and ponding are limitations affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Flooding and ponding are limitations affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets

- Flooding may damage local roads and streets.
- Ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if protected from flooding or not frequently flooded during the growing season
Land capability class: Nikwasi—7w; Dellwood—6s
Virginia soil management group: Nikwasi—EE; Dellwood—CC
Hydric soils: Nikwasi—yes; Dellwood—no

36D—Peaks-Edneyville complex, 15 to 25 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Peaks and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Edneyville and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Peaks

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 5 inches—brown gravelly loam

Subsoil:
5 to 12 inches—dark yellowish brown gravelly loam
12 to 25 inches—dark yellowish brown very cobbly loam

Substratum:
25 to 34 inches—dark yellowish brown very cobbly loam

Hard bedrock:
34 to 80 inches—indurated granite gneiss bedrock

Edneyville

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown gravelly loam

Subsoil:
6 to 29 inches—strong brown loam

Substratum:
29 to 61 inches—dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Peaks soil, have more clay throughout, and have less than 35 percent rock fragments in the subsoil
- Cliffield soils, which are similar to the Peaks soil, have more clay in the subsoil, and are over schist
- Other soils that are similar to the Peaks soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Edneyville soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Peaks—very low (about 2.7 inches); Edneyville—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Peaks—high (about 5.95 in/hr); Edneyville—high (about 1.98 in/hr)
Depth class: Peaks—moderately deep (20 to 40 inches); Edneyville—very deep (more than 60 inches)
Depth to root-restrictive feature: Peaks—20 to 40 inches to bedrock (lithic); Edneyville—more than 60 inches
Drainage class: Peaks—somewhat excessively drained; Edneyville—well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Peaks—high; Edneyville—medium
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from granitic gneiss, granulite, and other resistant rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.

- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Peaks—JJ; Edneyville—GG
Hydric soils: No

36E—Peaks-Edneyville complex, 25 to 45 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Peaks and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Edneyville and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Peaks

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 5 inches—brown gravelly loam

Subsoil:
5 to 12 inches—dark yellowish brown gravelly loam
12 to 25 inches—dark yellowish brown very cobbly loam

Substratum:
25 to 34 inches—dark yellowish brown very cobbly loam

Hard bedrock:
34 to 80 inches—indurated granite gneiss bedrock

Edneyville

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown gravelly loam

Subsoil:
6 to 29 inches—strong brown loam

Substratum:
29 to 61 inches—dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Cowee soils, which are similar to the Peaks soil, have more clay throughout, and have less than 35 percent rock fragments in the subsoil
- Cliffield soils, which are similar to the Peaks soil, have more clay in the subsoil, and are over schist
- Other soils that are similar to the Peaks soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Edneyville soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Peaks—very low (about 2.7 inches); Edneyville—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Peaks—high (about 5.95 in/hr); Edneyville—high (about 1.98 in/hr)
Depth class: Peaks—moderately deep (20 to 40 inches); Edneyville—very deep (more than 60 inches)
Depth to root-restrictive feature: Peaks—20 to 40 inches to bedrock (lithic); Edneyville—more than 60 inches
Drainage class: Peaks—somewhat excessively drained; Edneyville—well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None

Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Peaks—high; Edneyville—medium
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from granitic gneiss, granulite, and other resistant rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to northern red oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland

Land capability class: 7e
Virginia soil management group: Peaks—JJ; Edneyville—GG
Hydric soils: No

37F—Peaks-Rock outcrop complex, 45 to 90 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: This soil and miscellaneous land type occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Peaks and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Rock outcrop: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Peaks

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 5 inches—brown gravelly loam

Subsoil:
5 to 12 inches—dark yellowish brown gravelly loam
12 to 25 inches—dark yellowish brown very cobbly loam

Substratum:
25 to 34 inches—dark yellowish brown very cobbly loam

Hard bedrock:
34 to 80 inches—indurated granite gneiss bedrock

Rock outcrop

This part of the map unit consists of outcrops of granite gneiss bedrock. The outcrops are a few inches to about 100 feet tall, and some are near-vertical cliffs.

Minor Components

Dissimilar components:
- Cullasaja soils in colluvial drainageways

Similar components:
- Cliffield soils, which are similar to the Peaks soil, have more clay in the subsoil, and are over schist
- Other soils that are similar to the Peaks soil and have less than 35 percent rock fragments in the subsoil

Properties and Qualities of the Peaks Soil

Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: High (about 5.95 in/hr)
Depth class: Moderately deep (20 to 40 inches)

Depth to root-restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Residuum from granitic gneiss, granulite, and other resistant rocks

Use and Management Considerations

Cropland

- This map unit is unsuited to cropland.

Pastureland

- This map unit is unsuited to pastureland.

Woodland

Suitability: Moderately suited to eastern white pine; poorly suited to northern red oak and yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Peaks—7s; Rock outcrop—8s
Virginia soil management group: Peaks—JJ; Rock outcrop—none assigned
Hydric soils: No

38C—Penhook-Goblintown complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Penhook and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Goblintown and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Goblintown

Surface layer:
0 to 6 inches—black loam

Subsoil:
6 to 14 inches—very dark gray clay
14 to 20 inches—very dark gray channery clay loam with many black mottles

Substratum:
20 to 37 inches—very dark gray very channery loam with common very dark gray mottles

Soft bedrock:
37 to 80 inches—weakly cemented graphitic schist bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Penhook—moderate (about 8.1 inches); Goblintown—moderate (about 6.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Penhook—very deep (more than 60 inches); Goblintown—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Penhook—more than 60 inches; Goblintown—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Penhook—residuum from phyllite and schist; Goblintown—residuum from graphitic schist and graphitic phyllite

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: Penhook—X; Goblintown—V
Hydric soils: No

39C—Penhook-Strawfield complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Penhook and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Strawfield and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Strawfield

Surface layer:
0 to 2 inches—brown clay loam

Subsoil:
2 to 9 inches—strong brown clay loam
9 to 22 inches—red clay

Hard bedrock:
22 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Penhook—moderate (about 8.1 inches); Strawfield—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Penhook—very deep (more than 60 inches); Strawfield—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Penhook—more than 60 inches; Strawfield—20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

Suitability: Well suited to tobacco; moderately suited to corn, soybeans, and wheat
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential

negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: X
Hydric soils: No

39D—Penhook-Strawfield complex, 15 to 25 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Penhook and similar soils: Typically 65 percent, ranging from about 60 to 70 percent
Strawfield and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Strawfield

Surface layer:
0 to 2 inches—brown clay loam

Subsoil:
2 to 9 inches—strong brown clay loam
9 to 22 inches—red clay

Hard bedrock:
22 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Penhook—moderate (about 8.1 inches); Strawfield—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Penhook—very deep (more than 60 inches); Strawfield—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Penhook—more than 60 inches; Strawfield—20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to chestnut oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: X
Hydric soils: No

39E—Penhook-Strawfield complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Penhook and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Strawfield and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Penhook

Organic layer:
0 to 1 inch—moderately decomposed plant material

Surface layer:
1 to 6 inches—brown loam

Subsoil:
6 to 9 inches—yellowish red clay loam
9 to 43 inches—red clay
43 to 52 inches—red parachannery clay loam

Substratum:
52 to 63 inches—yellowish red, dark red, red, and reddish yellow loam

Strawfield

Surface layer:
0 to 2 inches—brown clay loam

Subsoil:
2 to 9 inches—strong brown clay loam
9 to 22 inches—red clay

Hard bedrock:
22 to 80 inches—indurated phyllite bedrock

Minor Components

Dissimilar components:
- Bugley soils, which have hard bedrock between depths of 10 and 20 inches and have more than 35 percent rock fragments in the subsoil

Similar components:
- Littlejoe soils, which are similar to the Penhook soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Penhook—moderate (about 8.1 inches); Strawfield—low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Penhook—very deep (more than 60 inches); Strawfield—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Penhook—more than 60 inches; Strawfield—20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Surface fragments: None
Parent material: Residuum from phyllite and schist

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to chestnut oak; poorly suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: X
Hydric soils: No

40E—Rhodhiss-Stott Knob complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Rhodhiss and similar soils: Typically 75 percent, ranging from about 70 to 80 percent
Stott Knob and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Rhodhiss

Surface layer:
0 to 3 inches—brown loam

Subsoil:
3 to 5 inches—yellowish brown loam
5 to 20 inches—strong brown clay loam
20 to 30 inches—red clay loam
30 to 38 inches—yellowish red loam

Substratum:
38 to 60 inches—brownish yellow sandy loam
60 to 80 inches—yellowish red, red, brownish yellow, and strong brown loamy sand

Stott Knob

Organic layer:
0 to 2 inches—highly decomposed plant material

Surface layer:
2 to 4 inches—brown loam

Subsoil:
4 to 19 inches—yellowish red clay loam

Substratum:
19 to 31 inches—strong brown gravelly loam
31 to 38 inches—strong brown extremely parachannery loam

Soft bedrock:
38 to 80 inches—moderately cemented mica schist bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Fairview soils, which are similar to the Rhodhiss soil and have more clay throughout

Soil Properties and Qualities

Available water capacity: Rhodhiss—moderate (about 6.4 inches); Stott Knob—low (about 5.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Rhodhiss—very deep (more than 60 inches); Stott Knob—moderately deep (20 to 40 inches)
Depth to root-restrictive feature: Rhodhiss—more than 60 inches; Stott Knob—20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.

- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.

Septic tank absorption fields

- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength may cause structural damage to local roads and streets.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Rhodhiss—X; Stott Knob—N
Hydric soils: No

41B—Saunook loam, 2 to 8 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Terraces, fans, and drainageways on mountain slopes
Position on the landform: Convex to concave footslopes and toeslopes

Map Unit Composition

Saunook and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
• None identified

Similar components:
• None identified

Soil Properties and Qualities

Available water capacity: High (about 10.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, and wheat; moderately suited to alfalfa hay; not suited to tobacco
• The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
• The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
• Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
• The slope may restrict the use of some mechanical planting equipment.
• The low strength interferes with the construction of haul roads and log landings.
• The low strength may create unsafe conditions for log trucks.

Building sites

• This soil is well suited to building sites.

Septic tank absorption fields

• This soil is well suited to septic tank absorption fields.

Local roads and streets

• This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: L
Hydric soil: No

41C—Saunook loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Terraces, fans, and drainageways on mountain slopes
Position on the landform: Convex to concave footslopes and toeslopes

Map Unit Composition

Saunook and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: High (about 10.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat; moderately suited to corn and soybeans; not suited to tobacco

- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: L
Hydric soil: No

41D—Saunook loam, 15 to 25 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Terraces, fans, and drainageways on mountain slopes
Position on the landform: Convex to concave backslopes

Map Unit Composition

Saunook and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: High (about 10.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn, soybeans, and wheat; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.

- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: L
Hydric soil: No

42B—Saunook-Thunder complex, 2 to 8 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and coves on mountain slopes
Position on the landform: Convex to concave footslopes and toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Saunook and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Thunder and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Saunook

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Thunder

Surface layer:
0 to 3 inches—dark brown very cobbly loam

Subsoil:
3 to 18 inches—yellowish red very cobbly sandy clay loam
18 to 49 inches—strong brown extremely cobbly sandy clay loam
49 to 60 inches—strong brown extremely stony fine sandy loam with common brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Saunook—high (about 10.0 inches); Thunder—low (about 4.2 inches)
Slowest saturated hydraulic conductivity: Saunook—moderately high (about 0.57 in/hr); Thunder—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Saunook—alluvium from metamorphic and igneous materials; Thunder—colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- These soils are well suited to building sites.

Septic tank absorption fields

- These soils are well suited to septic tank absorption fields.

Local roads and streets

- These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Saunook—L; Thunder—GG
Hydric soils: No

42C—Saunook-Thunder complex, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and coves on mountain slopes
Position on the landform: Convex to concave footslopes and toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Saunook and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Thunder and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Saunook

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Thunder

Surface layer:
0 to 3 inches—dark brown very cobbly loam

Subsoil:
3 to 18 inches—yellowish red very cobbly sandy clay loam
18 to 49 inches—strong brown extremely cobbly sandy clay loam

49 to 60 inches—strong brown extremely stony fine sandy loam with common brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Saunook—high (about 10.0 inches); Thunder—low (about 4.2 inches)
Slowest saturated hydraulic conductivity: Saunook—moderately high (about 0.57 in/hr); Thunder—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Saunook—alluvium from metamorphic and igneous materials; Thunder—colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Saunook—L; Thunder—GG
Hydric soils: No

42D—Saunook-Thunder complex, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and coves on mountain slopes
Position on the landform: Convex to concave backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Saunook and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Thunder and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Saunook

Surface layer:
0 to 9 inches—very dark grayish brown loam

Subsoil:
9 to 14 inches—brown clay loam
14 to 26 inches—strong brown clay loam
26 to 33 inches—strong brown sandy clay loam

Substratum:
33 to 51 inches—strong brown loam with light gray iron depletions and yellowish brown masses of oxidized iron
51 to 60 inches—strong brown, reddish yellow, and yellowish red loam with light gray iron depletions and yellowish brown masses of oxidized iron

Thunder

Surface layer:
0 to 3 inches—dark brown very cobbly loam

Subsoil:
3 to 18 inches—yellowish red very cobbly sandy clay loam
18 to 49 inches—strong brown extremely cobbly sandy clay loam
49 to 60 inches—strong brown extremely stony fine sandy loam with common brown mottles

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Soil Properties and Qualities

Available water capacity: Saunook—high (about 10.0 inches); Thunder—low (about 4.2 inches)
Slowest saturated hydraulic conductivity: Saunook—moderately high (about 0.57 in/hr); Thunder—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Saunook—alluvium from metamorphic and igneous materials; Thunder—colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to yellow-poplar and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- The use of mechanical planting equipment is impractical because of the content of rock fragments.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Saunook—L; Thunder—GG
Hydric soils: No

43B—Thurmont fine sandy loam, 2 to 8 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Interfluves and drainageways
Position on the landform: Linear to concave summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Thurmont and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 4 inches—dark brown fine sandy loam

Subsoil:
4 to 9 inches—brown loam
9 to 22 inches—yellowish red loam
22 to 50 inches—yellowish red clay loam
50 to 57 inches—yellowish red sandy clay loam

Substratum:
57 to 62 inches—strong brown clay loam with light gray iron depletions and yellowish brown masses of oxidized iron
62 to 80 inches—light gray sandy clay loam with strong brown masses of oxidized iron
80 to 90 inches—white clay with yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Braddock soils, which have more clay throughout
- Elsinboro soils in low stream terrace positions
- Other soils that have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: High (about 10.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 80 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, tobacco, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets

- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e

Virginia soil management group: L
Hydric soil: No

43C—Thurmont fine sandy loam, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Interfluves and drainageways
Position on the landform: Linear to concave summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Thurmont and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 4 inches—dark brown fine sandy loam

Subsoil:
4 to 9 inches—brown loam
9 to 22 inches—yellowish red loam
22 to 50 inches—yellowish red clay loam
50 to 57 inches—yellowish red sandy clay loam

Substratum:
57 to 62 inches—strong brown clay loam with light gray iron depletions and yellowish brown masses of oxidized iron
62 to 80 inches—light gray sandy clay loam with strong brown masses of oxidized iron
80 to 90 inches—white clay with yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Braddock soils, which have more clay throughout
- Elsinboro soils in low stream terrace positions
- Other soils that have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: High (about 10.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 80 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to wheat, tobacco, and grass-legume hay; moderately suited to corn and soybeans
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: L
Hydric soil: No

43D—Thurmont fine sandy loam, 15 to 25 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Interfluves and drainageways

Position on the landform: Linear to concave summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Thurmont and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 4 inches—dark brown fine sandy loam

Subsoil:
4 to 9 inches—brown loam
9 to 22 inches—yellowish red loam
22 to 50 inches—yellowish red clay loam
50 to 57 inches—yellowish red sandy clay loam

Substratum:
57 to 62 inches—strong brown clay loam with light gray iron depletions and yellowish brown masses of oxidized iron
62 to 80 inches—light gray sandy clay loam with strong brown masses of oxidized iron
80 to 90 inches—white clay with yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Braddock soils, which have more clay throughout
- Elsinboro soils in low stream terrace positions
- Other soils that have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: High (about 10.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 80 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

Suitability: Well suited to tobacco; moderately suited to corn, soybeans, and wheat
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: L
Hydric soil: No

44C—Thurmont cobbly fine sandy loam, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Interfluves and drainageways
Position on the landform: Linear to concave summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Thurmont and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 4 inches—dark brown cobbly fine sandy loam

Subsoil:
4 to 9 inches—brown loam
9 to 22 inches—yellowish red loam
22 to 50 inches—yellowish red clay loam
50 to 57 inches—yellowish red sandy clay loam

Substratum:
57 to 62 inches—strong brown clay loam with light gray iron depletions and yellowish brown masses of oxidized iron
62 to 80 inches—light gray sandy clay loam with strong brown masses of oxidized iron
80 to 90 inches—white clay with yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Braddock soils, which have more clay throughout
- Elsinboro soils in low stream terrace positions
- Other soils that have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: High (about 10.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 80 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: L
Hydric soil: No

44D—Thurmont cobbly fine sandy loam, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Interfluves and drainageways
Position on the landform: Linear to concave summits, shoulders, backslopes, footslopes, and toeslopes

Map Unit Composition

Thurmont and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—highly decomposed plant material

Surface layer:
1 to 4 inches—dark brown cobbly fine sandy loam

Subsoil:
4 to 9 inches—brown loam
9 to 22 inches—yellowish red loam

22 to 50 inches—yellowish red clay loam
50 to 57 inches—yellowish red sandy clay loam

Substratum:
57 to 62 inches—strong brown clay loam with light gray iron depletions and yellowish brown masses of oxidized iron
62 to 80 inches—light gray sandy clay loam with strong brown masses of oxidized iron
80 to 90 inches—white clay with yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- None identified

Similar components:
- Braddock soils, which have more clay throughout
- Elsinboro soils in low stream terrace positions
- Other soils that have a water table above a depth of 40 inches during the wet season

Soil Properties and Qualities

Available water capacity: High (about 10.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 80 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Colluvium and alluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- This soil is unsuited to cropland.

Pastureland

- This soil is unsuited to pastureland.

Woodland

Suitability: Well suited to eastern white pine; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.

- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: L
Hydric soil: No

45B—Trimont-Kibler complex, 2 to 8 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Kibler and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

Suitability: Moderately suited to corn; poorly suited to soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- These soils are well suited to building sites.

Septic tank absorption fields

- These soils are well suited to septic tank absorption fields.

Local roads and streets

- These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: FF
Hydric soils: No

45C—Trimont-Kibler complex, 8 to 15 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Kibler and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: FF
Hydric soils: No

45D—Trimont-Kibler complex, 15 to 25 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Kibler and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Trimont—high; Kibler—medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn and soybeans; not suited to tobacco
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.

- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: FF
Hydric soils: No

45E—Trimont-Kibler complex, 25 to 45 percent slopes

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Kibler and similar soils: Typically 45 percent, ranging from about 40 to 50 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Trimont—high; Kibler—medium
Surface fragments: None
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: FF
Hydric soils: No

46B—Trimont-Kibler complex, 2 to 8 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Kibler and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and do not have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- These soils are well suited to building sites.

Septic tank absorption fields

- These soils are well suited to septic tank absorption fields.

Local roads and streets

- These soils are well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: FF
Hydric soils: No

46C—Trimont-Kibler complex, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Kibler and similar soils: Typically 35 percent, ranging from about 30 to 40 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: FF
Hydric soils: No

46D—Trimont-Kibler complex, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Kibler and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Trimont—high; Kibler—medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: FF
Hydric soils: No

46E—Trimont-Kibler complex, 25 to 45 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Trimont and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Kibler and similar soils: Typically 45 percent, ranging from about 40 to 50 percent

Typical Profile

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Kibler soil, have soft bedrock between depths of 20 and 40 inches, and have dark surface horizons
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Trimont—moderate (about 8.5 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Trimont—very deep (more than 60 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Trimont—more than 60 inches; Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Trimont—high; Kibler—medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Moderately suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: FF
Hydric soils: No

47C—Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and fans on mountain slopes
Position on the landform: Linear to concave footslopes and toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Tuckasegee and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Cullasaja and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Tuckasegee

Surface layer:
0 to 14 inches—very dark brown cobbly loam

Subsurface layer:
14 to 17 inches—dark brown cobbly loam

Subsoil:
17 to 42 inches—strong brown cobbly loam
42 to 60 inches—strong brown cobbly sandy clay loam

Cullasaja

Surface layer:
0 to 3 inches—black channery mucky loam
3 to 7 inches—very dark brown channery loam

Subsoil:
7 to 16 inches—dark brown channery loam
16 to 23 inches—dark yellowish brown channery fine sandy loam
23 to 60 inches—dark yellowish brown very channery fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Trimont soils, which are similar to the Tuckasegee soil and formed in residuum
- Other soils that are similar to the Tuckasegee and Cullasaja soils and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Tuckasegee—high (about 9.4 inches); Cullasaja—low (about 5.4 inches)
Slowest saturated hydraulic conductivity: Tuckasegee—moderately high (about 0.57 in/hr); Cullasaja—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Tuckasegee—medium; Cullasaja—low
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Large stones on the surface may restrict the operation of some farm machinery.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Tuckasegee—G; Cullasaja—FF
Hydric soils: No

47D—Tuckasegee-Cullasaja complex, 15 to 25 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and fans on mountain slopes
Position on the landform: Linear to concave footslopes and toeslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Tuckasegee and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Cullasaja and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Tuckasegee

Surface layer:
0 to 14 inches—very dark brown cobbly loam

Subsurface layer:
14 to 17 inches—dark brown cobbly loam

Subsoil:
17 to 42 inches—strong brown cobbly loam
42 to 60 inches—strong brown cobbly sandy clay loam

Cullasaja

Surface layer:
0 to 3 inches—black channery mucky loam
3 to 7 inches—very dark brown channery loam

Subsoil:
7 to 16 inches—dark brown channery loam
16 to 23 inches—dark yellowish brown channery fine sandy loam
23 to 60 inches—dark yellowish brown very channery fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Trimont soils, which are similar to the Tuckasegee soil and formed in residuum

- Other soils that are similar to the Tuckasegee and Cullasaja soils and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Tuckasegee—high (about 9.4 inches); Cullasaja—low (about 5.4 inches)
Slowest saturated hydraulic conductivity: Tuckasegee—moderately high (about 0.57 in/hr); Cullasaja—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s

Virginia soil management group: Tuckasegee—G; Cullasaja—FF
Hydric soils: No

47E—Tuckasegee-Cullasaja complex, 25 to 45 percent slopes, very stony

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Drainageways and fans on mountain slopes
Position on the landform: Linear to concave backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Tuckasegee and similar soils: Typically 45 percent, ranging from about 40 to 50 percent
Cullasaja and similar soils: Typically 40 percent, ranging from about 35 to 45 percent

Typical Profile

Tuckasegee

Surface layer:
0 to 14 inches—very dark brown cobbly loam

Subsurface layer:
14 to 17 inches—dark brown cobbly loam

Subsoil:
17 to 42 inches—strong brown cobbly loam
42 to 60 inches—strong brown cobbly sandy clay loam

Cullasaja

Surface layer:
0 to 3 inches—black channery mucky loam
3 to 7 inches—very dark brown channery loam

Subsoil:
7 to 16 inches—dark brown channery loam
16 to 23 inches—dark yellowish brown channery fine sandy loam
23 to 60 inches—dark yellowish brown very channery fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Trimont soils, which are similar to the Tuckasegee soil and formed in residuum
- Other soils that are similar to the Tuckasegee and Cullasaja soils and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Tuckasegee—high (about 9.4 inches); Cullasaja—low (about 5.4 inches)

Slowest saturated hydraulic conductivity: Tuckasegee—moderately high (about 0.57 in/hr); Cullasaja—high (about 1.98 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: About 0.10 to 3.00 percent subangular stones
Parent material: Colluvium from metamorphic and igneous materials

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak, yellow-poplar, and eastern white pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.

Building sites

- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Tuckasegee—G; Cullasaja—FF
Hydric soils: No

48—Udorthents, loamy

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136)
Landform: Variable

Map Unit Composition

Udorthents and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Definition

Udorthents consist of disturbed soil and rock material. The disturbance generally results from surface excavations and subsequent deposits of soil and rock material for construction projects. Udorthents are a mixture of soil textures that vary in color, rock fragment content, depth to bedrock, density, and drainage. Differential subsidence can occur in Udorthents.

Minor Components

Dissimilar components:
- None identified

Similar components:
- None identified

Use and Management Considerations

- Onsite investigation is needed to determine the suitability for specific uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: None assigned
Virginia soil management group: None assigned
Hydric soils: No

49F—Widgett-Kibler complex, 45 to 75 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Widgett and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Kibler and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Widgett

Surface layer:
0 to 2 inches—very dark gray extremely channery very fine sandy loam
2 to 9 inches—dark olive brown extremely channery very fine sandy loam

Subsoil:
9 to 16 inches—olive brown very channery loam
16 to 24 inches—strong brown very channery clay loam

Substratum:
24 to 35 inches—strong brown extremely channery loam with few olive brown mottles

Hard bedrock:
35 to 80 inches—indurated gneiss bedrock

Kibler

Surface layer:
0 to 8 inches—dark brown loam

Subsoil:
8 to 24 inches—strong brown sandy clay loam with common strong brown mottles
24 to 32 inches—yellowish red sandy clay loam

Substratum:
32 to 54 inches—yellowish red paragravelly fine sandy loam with common strong brown mottles

Soft bedrock:
54 to 80 inches—moderately cemented gneiss bedrock

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Widgett soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Kibler soil and have soft bedrock between depths of 40 and 60 inches

Soil Properties and Qualities

Available water capacity: Widgett—low (about 3.2 inches); Kibler—moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Widgett—high (about 1.98 in/hr); Kibler—moderately high (about 0.57 in/hr)
Depth class: Widgett—moderately deep (20 to 40 inches); Kibler—deep (40 to 60 inches)
Depth to root-restrictive feature: Widgett—20 to 40 inches to bedrock (lithic); Kibler—40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Widgett—high; Kibler—medium
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Widgett—JJ; Kibler—FF
Hydric soils: No

50D—Widgett-Trimont complex, 15 to 25 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Widgett and similar soils: Typically 60 percent, ranging from about 55 to 65 percent
Trimont and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Widgett

Surface layer:
0 to 2 inches—very dark gray extremely channery very fine sandy loam
2 to 9 inches—dark olive brown extremely channery very fine sandy loam

Subsoil:
9 to 16 inches—olive brown very channery loam
16 to 24 inches—strong brown very channery clay loam

Substratum:
24 to 35 inches—strong brown extremely channery loam with few olive brown mottles

Hard bedrock:
35 to 80 inches—indurated gneiss bedrock

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Widgett soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Widgett—low (about 3.2 inches); Trimont—moderate (about 8.5 inches)

Slowest saturated hydraulic conductivity: Widgett—high (about 1.98 in/hr); Trimont—moderately high (about 0.57 in/hr)
Depth class: Widgett—moderately deep (20 to 40 inches); Trimont—very deep (more than 60 inches)
Depth to root-restrictive feature: Widgett—20 to 40 inches to bedrock (lithic); Trimont—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7s
Virginia soil management group: Widgett—JJ; Trimont—FF
Hydric soils: No

50E—Widgett-Trimont complex, 25 to 45 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Widgett and similar soils: Typically 55 percent, ranging from about 50 to 60 percent
Trimont and similar soils: Typically 25 percent, ranging from about 20 to 30 percent

Typical Profile

Widgett

Surface layer:
0 to 2 inches—very dark gray extremely channery very fine sandy loam
2 to 9 inches—dark olive brown extremely channery very fine sandy loam

Subsoil:
9 to 16 inches—olive brown very channery loam
16 to 24 inches—strong brown very channery clay loam

Substratum:
24 to 35 inches—strong brown extremely channery loam with few olive brown mottles

Hard bedrock:
35 to 80 inches—indurated gneiss bedrock

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Widgett soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Widgett—low (about 3.2 inches); Trimont—moderate (about 8.5 inches)
Slowest saturated hydraulic conductivity: Widgett—high (about 1.98 in/hr); Trimont—moderately high (about 0.57 in/hr)
Depth class: Widgett—moderately deep (20 to 40 inches); Trimont—very deep (more than 60 inches)
Depth to root-restrictive feature: Widgett—20 to 40 inches to bedrock (lithic); Trimont—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.

- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Widgett—JJ; Trimont—FF
Hydric soils: No

50F—Widgett-Trimont complex, 45 to 90 percent slopes, very rocky

Setting

Major land resource area: Southern Blue Ridge (MLRA 130B)
Landform: Mountain slopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Widgett and similar soils: Typically 50 percent, ranging from about 45 to 55 percent
Trimont and similar soils: Typically 20 percent, ranging from about 15 to 25 percent

Typical Profile

Widgett

Surface layer:
0 to 2 inches—very dark gray extremely channery very fine sandy loam
2 to 9 inches—dark olive brown extremely channery very fine sandy loam

Subsoil:
9 to 16 inches—olive brown very channery loam
16 to 24 inches—strong brown very channery clay loam

Substratum:
24 to 35 inches—strong brown extremely channery loam with few olive brown mottles

Hard bedrock:
35 to 80 inches—indurated gneiss bedrock

Trimont

Surface layer:
0 to 10 inches—very dark grayish brown loam

Subsoil:
10 to 29 inches—brown loam
29 to 33 inches—dark yellowish brown loam

Substratum:
33 to 80 inches—brown and dark yellowish brown fine sandy loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Bellspur soils, which are similar to the Widgett soil and have less than 35 percent rock fragments in the subsoil
- Other soils that are similar to the Trimont soil, have soft bedrock between depths of 40 and 60 inches, and do not have dark surface horizons

Soil Properties and Qualities

Available water capacity: Widgett—low (about 3.2 inches); Trimont—moderate (about 8.5 inches)
Slowest saturated hydraulic conductivity: Widgett—high (about 1.98 in/hr); Trimont—moderately high (about 0.57 in/hr)
Depth class: Widgett—moderately deep (20 to 40 inches); Trimont—very deep (more than 60 inches)
Depth to root-restrictive feature: Widgett—20 to 40 inches to bedrock (lithic); Trimont—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Surface fragments: About 0.10 to 3.00 percent subrounded stones
Parent material: Residuum from mica schist, mica gneiss, and amphibolite

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Well suited to northern red oak; moderately suited to yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- Rock fragments restrict the use of equipment during site preparation for planting or seeding.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the limited depth to bedrock, the ease of excavation is greatly reduced and the difficulty in constructing foundations and installing utilities is increased.
- Because of rock outcrops, rock removal may be needed.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.
- Because of rock outcrops, special design of septic tank absorption fields is needed.

Local roads and streets

- Because of the limited depth to bedrock, the ease of excavation is reduced and the difficulty of constructing roads is increased.
- Because of the slope, designing local roads and streets is difficult.
- Because of rock outcrops, special design of the grade of local roads and streets and special consideration of their location are needed to avoid rock removal.

Interpretive Groups

Prime farmland: Not prime farmland

Land capability class: 7e
Virginia soil management group: Widgett—JJ; Trimont—FF
Hydric soils: No

51B—Woolwine-Fairview complex, 2 to 8 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Woolwine and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Fairview and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Woolwine

Surface layer:
0 to 2 inches—brown loam

Subsoil:
2 to 7 inches—yellowish red clay loam
7 to 13 inches—yellowish red clay
13 to 28 inches—red clay

Soft bedrock:
28 to 42 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
42 to 80 inches—indurated mica gneiss bedrock

Fairview

Surface layer:
0 to 4 inches—brown fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Westfield soils, which are similar to the Woolwine soil and have soft bedrock between depths of 40 and 60 inches
- Clifford soils, which are similar to the Fairview soil and have a thicker solum

Soil Properties and Qualities

Available water capacity: Woolwine—low (about 3.8 inches); Fairview—moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Woolwine—moderately deep (20 to 40 inches); Fairview—very deep (more than 60 inches)
Depth to root-restrictive feature: Woolwine—20 to 40 inches to bedrock (paralithic); Fairview—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Woolwine—unspecified; Fairview—high
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Woolwine—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks; Fairview—residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Not suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3s
Virginia soil management group: Woolwine—V; Fairview—X
Hydric soils: No

51C—Woolwine-Fairview complex, 8 to 15 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Convex summits and shoulders

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Woolwine and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Fairview and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Woolwine

Surface layer:
0 to 2 inches—brown loam

Subsoil:
2 to 7 inches—yellowish red clay loam
7 to 13 inches—yellowish red clay
13 to 28 inches—red clay

Soft bedrock:
28 to 42 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
42 to 80 inches—indurated mica gneiss bedrock

Fairview

Surface layer:
0 to 4 inches—brown fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Westfield soils, which are similar to the Woolwine soil and have soft bedrock between depths of 40 and 60 inches
- Clifford soils, which are similar to the Fairview soil and have a thicker solum

Soil Properties and Qualities

Available water capacity: Woolwine—low (about 3.8 inches); Fairview—moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Woolwine—moderately deep (20 to 40 inches); Fairview—very deep (more than 60 inches)
Depth to root-restrictive feature: Woolwine—20 to 40 inches to bedrock (paralithic); Fairview—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Woolwine—unspecified; Fairview—high
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Woolwine—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks; Fairview—residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

Suitability: Not suited to corn, soybeans, wheat, tobacco, grass-legume hay, and alfalfa hay
- The rate of surface runoff, the erosion hazard, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery and interfere with the emergence of seedlings.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to yellow-poplar; poorly suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.

- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: Woolwine—V; Fairview—X
Hydric soils: No

51D—Woolwine-Fairview complex, 15 to 25 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Woolwine and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Fairview and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Woolwine

Surface layer:
0 to 2 inches—brown loam

Subsoil:
2 to 7 inches—yellowish red clay loam
7 to 13 inches—yellowish red clay
13 to 28 inches—red clay

Soft bedrock:
28 to 42 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
42 to 80 inches—indurated mica gneiss bedrock

Fairview

Surface layer:
0 to 4 inches—brown fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Westfield soils, which are similar to the Woolwine soil and have soft bedrock between depths of 40 and 60 inches
- Clifford soils, which are similar to the Fairview soil and have a thicker solum

Soil Properties and Qualities

Available water capacity: Woolwine—low (about 3.8 inches); Fairview—moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Woolwine—moderately deep (20 to 40 inches); Fairview—very deep (more than 60 inches)
Depth to root-restrictive feature: Woolwine—20 to 40 inches to bedrock (paralithic); Fairview—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Woolwine—unspecified; Fairview—high
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Woolwine—residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks; Fairview—residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- Rock fragments on the surface may restrict the operation of farm machinery.

Woodland

Suitability: Moderately suited to yellow-poplar; poorly suited to loblolly pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for preparing sites for planting and seeding is restricted.
- The slope may restrict the use of some mechanical planting equipment.
- Bedrock may interfere with the construction of haul roads and log landings.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6s
Virginia soil management group: Woolwine—V; Fairview—X
Hydric soils: No

51E—Woolwine-Fairview complex, 25 to 45 percent slopes, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Linear to convex backslopes

Map Unit Composition

Note: These two soils occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Woolwine and similar soils: Typically 70 percent, ranging from about 65 to 75 percent
Fairview and similar soils: Typically 30 percent, ranging from about 25 to 35 percent

Typical Profile

Woolwine

Surface layer:
0 to 2 inches—brown loam

Subsoil:
2 to 7 inches—yellowish red clay loam
7 to 13 inches—yellowish red clay
13 to 28 inches—red clay

Soft bedrock:
28 to 42 inches—moderately cemented mica gneiss bedrock

Hard bedrock:
42 to 80 inches—indurated mica gneiss bedrock

Fairview

Surface layer:
0 to 4 inches—brown fine sandy loam
4 to 9 inches—strong brown sandy clay loam

Subsoil:
9 to 24 inches—red clay
24 to 29 inches—red clay loam

Substratum:
29 to 79 inches—red loam

Minor Components

Dissimilar components:
- None identified

Similar components:
- Westfield soils, which are similar to the Woolwine soil and have soft bedrock between depths of 40 and 60 inches
- Clifford soils, which are similar to the Fairview soil and have a thicker solum

Soil Properties and Qualities

Available water capacity: Woolwine—low (about 3.8 inches); Fairview—moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Depth class: Woolwine—moderately deep (20 to 40 inches); Fairview—very deep (more than 60 inches)
Depth to root-restrictive feature: Woolwine—20 to 40 inches to bedrock (paralithic); Fairview—more than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Woolwine—unspecified; Fairview—high
Surface fragments: About 0.01 to 0.10 percent subangular stones
Parent material: Woolwine—residuum from mica schist, mica gneiss, metagrawacke,

and high-grade metamorphic rocks; Fairview—residuum from mica schist and mica gneiss

Use and Management Considerations

Cropland

- These soils are unsuited to cropland.

Pastureland

- These soils are unsuited to pastureland.

Woodland

Suitability: Poorly suited to loblolly pine and yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality, especially in areas on steeper slopes. A timber harvest plan should focus on the proper location of haul roads and skid trails, and careful attention should be given to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.

Building sites

- The slope influences the use of machinery and the amount of excavation required.
- Because of the nature and depth of the soft bedrock, the ease of excavation is reduced and the difficulty of constructing foundations and installing utilities is increased.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because of the limited depth to bedrock, the filtering capacity of the soil is reduced and the difficulty of properly installing the effluent distribution lines is increased.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Woolwine—V; Fairview—X
Hydric soils: No

W—Water

This map unit is in the Southern Blue Ridge (MLRA 130B) and Southern Piedmont (MLRA 136) Major Land Resource Areas. It includes ponds, lakes, creeks, rivers, and reservoirs.

This map unit is not assigned any interpretive groups.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for agricultural waste management. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and Virginia soil management groups are discussed.

Effective pasture management practices include maintaining a mixture of grasses and legumes, rotating pasture, deferring grazing, controlling undesirable vegetation, and using proper stocking rates.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Agriculture of Patrick County

In 2002, according to the Census of Agriculture, about 20,085 acres of cropland were harvested in Patrick County *(12)*. The major row crops are flue-cured tobacco and corn. The majority of acreage in the survey area is in hay.

The climate and many of the soils in the soil survey area are suited to the crops commonly grown. Some of the soils, especially those on the sides of hills and mountains, are not suited to the crops because of the slope.

Very deep, well drained, nearly level and gently sloping soils, such as Clifford, Minnieville, and Elsinboro soils, are some of the most productive soils for cultivated crops, pasture, and hay crops.

Most areas of less sloping soils in the survey area are well suited to pasture and hay. The dominant plants in the well managed pastures are tall fescue and orchardgrass. In some pastures, legumes, mainly white clover and ladino clover, are grown with the grasses.

The dominant hay crops are orchardgrass, alfalfa, tall fescue, red clover, and lespedeza. Orchardgrass is the major grass hay crop because it produces better quality hay than tall fescue.

The latest information and suggestions for growing crops, hay, and pasture plants can be obtained from the local offices of the Virginia Cooperative Extension Service or the Natural Resources Conservation Service.

Most of the soils in Patrick County are highly leached. Consequently, they are strongly acid and generally low in essential plant nutrients. On most of the soils, crops and pasture plants respond well to applications of lime and fertilizer. The amount of lime and fertilizer to be applied to any individual area depends on the cropping history, the type of soil, the crops to be grown, and the desired yield.

Excessive tillage tends to destroy soil structure. This generally results in a lower rate of water infiltration and a seedbed with less favorable tilth. Restricting essential tillage to the period of optimum soil moisture content helps to prevent the formation of clods or of conditions that lead to crusting. Cropping systems that include close-growing crops or grasses and legumes in rotation with row crops help to prevent the deterioration of soil structure by excessive tillage.

Soil compaction and the deterioration of soil structure result if wet soils are trampled by livestock. Soil compaction causes an increase in the rate of surface runoff and a less favorable root zone for pasture plants.

Erosion is the major hazard on much of the cropland in the survey area. It reduces soil productivity and contributes to the sedimentation of ponds and streams. Erosion reduces the thickness of the topsoil, or surface layer, which contains most of the organic matter, available water, and nutrients. On soils that have a clayey subsoil, such as Clifford, Minnieville, Woolwine, and Braddock soils, controlling erosion is especially important. Where the original, friable surface layer has been lost through erosion, preparing a good seedbed, tillage, and growing a good stand of some crops are difficult in the remaining clayey spots. These eroded areas are mapped as inclusions in delineations of map units or are specifically named as in the map unit Clifford sandy clay loam, 8 to 15 percent slopes, moderately eroded.

Most of the cultivated soils in the county have a low content of naturally occurring organic matter and generally have weak structure. Organic matter is an important source of nitrogen for crops. It also improves soil structure, the rate of water infiltration, available water capacity, and tilth. Leaving crop residue on the surface or planting green manure crops helps to increase the content of organic matter.

High-intensity rains can cause the formation of a crust on the surface. The crusted surface is hard when dry and somewhat impervious to water, especially in areas where plowing has incorporated some of the clayey subsoil into the surface layer. When the surface is hard and crusted, the rate of surface runoff is increased. Regular additions of livestock manure and other organic material help to improve soil structure and reduce the hazard of surface crusting.

In many areas, soil erosion on farmland causes the pollution of streams by sediments, nutrients, and pesticides. Controlling erosion minimizes this pollution and improves the quality of water for municipal use and for fish and wildlife.

Erosion-control practices provide a protective surface cover, minimize runoff, and increase the rate of water infiltration. A cropping system that keeps a plant cover on the soil for extended periods helps to control erosion and maintain soil productivity. Including forage crops of legumes and grasses in the cropping system helps to control erosion in sloping areas, provide nitrogen for plants, and improve tilth for the next crop in rotation.

Structural practices, such as installing terraces, diversions, or grassed waterways, help to reduce the hazard of erosion by controlling runoff. Cropping systems that rotate grasses or close-growing crops with row crops also help to minimize erosion on cropland.

On soils that have short, irregular slopes, a cropping system that provides abundant plant cover helps to control erosion. Leaving crop residue on the surface, either by minimizing tillage or by stubble-mulching, helps to increase the rate of water infiltration, minimize runoff, and control erosion during seeding and the early growing period of the new crop.

On soils that have smooth, uniform slopes, contour tillage is effective in minimizing surface runoff and can significantly increase the amount of water that soaks into the soil. Soil moisture is commonly a critical factor at certain times during the growing season. Contour tillage is also very effective in controlling erosion.

The major limitations of most of the soils used for pasture and hay are high levels of acidity and low levels of natural fertility. Applications of lime help to overcome the acidity. Applications of fertilizer, especially nitrogen, are needed to improve soil fertility for the maximum production of forage.

The major problems in pasture management are establishing and maintaining a mixed stand of grasses and legumes and preventing overgrazing. Overgrazing

reduces the amount of desirable grasses and legumes and allows an increase in the amount of weeds. In addition, overgrazing decreases the extent of plant cover and increases erosion. The major concerns in pasture management are proper stocking rates that maintain the stand of desirable grasses and legumes, rotational grazing, deferred grazing, weed control, and applications of lime and fertilizer for the maximum production of forage.

Selecting an appropriate cropping system or resource management system is a major management decision for farmers in the county. The selected cropping system should not cause excessive soil erosion, should meet the needs of the farmer, and should be consistent with the capability of the soil. Cropping systems range from continually growing row crops or small grains to using various kinds of rotations that include grasses or legumes, or both. Conservation tillage, contour stripcropping, and planting cover crops and green manure crops are other farming methods that conserve soil.

Information on erosion-control practices for each kind of soil can be obtained at the local office of the Natural Resources Conservation Service. Information on management practices for cropland, pasture, and hayland can be obtained at the local office of the Virginia Cooperative Extension Service.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5, parts I and II. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification and the Virginia soil management group of map units in the survey area are also shown in the table.

The yields are based on VALUES (Virginia Agronomic Land Use Evaluation System) *(21)*. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Realistic yield goals can be maintained over a long-term basis through proper nutrient management and other soil amendments such as lime. Applications of nitrogen and phosphorus from organic and inorganic forms should be done according to approved nutrient management practices and regulations.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 5 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at two levels—capability class and subclass *(18)*.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

The capability classification of the soils in this survey area is given in the section “Detailed Soil Map Units” and in table 5.

Virginia Soil Management Groups

The Virginia Agronomic Land Use Evaluation System (VALUES) is a system that ranks soils for management and productivity *(21)*. VALUES places each soil series in

Virginia into one of 43 management groups. The format of the management groups, A through QQ, include the following soil characteristics—regional occurrence; parent material; landscape position or influence; solum thickness; dominant profile features, such as texture; available water capacity for plants; and internal soil drainage. Yields that are both economically and environmentally feasible were assigned to each management group, based on yields of field trial crop data and research. The following paragraphs describe the soil management groups in Patrick County.

Group A. The soils of this group formed in alluvium on gently sloping landscapes of flood plains or stream terraces. They have deep sola, have medium textures throughout, have high water-supplying capacities, and are well drained.

Group G. The soils of this group formed in locally transported, medium textured sediments of either colluvial or alluvial origin that overlay a wide range of residual materials. Occurring from the Piedmont region westward, they are located in landscape positions ranging from footslopes and toeslopes to the heads of drainageways, to depressions, and to narrow upland drainageways. These soils are deep with silty to loamy upper subsoils underlain with clayey to stony materials. They have moderately high water-supplying capacities and are moderately well drained or somewhat poorly drained.

Group L. The soils of this group formed in old, transported deposits of alluvium or colluvium. They are common on stream terraces, footslopes, and older, elevated, upland landscapes that were once stream terraces. These soils have deep sola, medium textured surface layers, more clayey subsurface layers, and commonly gravel and rounded stones. They have moderate to high water-supplying capacities and typically are well drained.

Group N. The soils of this group formed in residuum of weathered mafic rocks located on dissected uplands in the Piedmont region. They have deep to moderately deep sola, medium textured surface layers, reddish brown clayey subsurface layers, and moderate water-supplying capacities. These soils are well drained.

Group O. The soils of this group formed in transported materials ranging from mountain colluvium to old alluvium on dissected uplands of the Piedmont and mountainous regions and occurring as old elevated river terrace deposits. They have deep to shallow sola, very dark red clayey subsurface horizons, and, in some areas, significant coarse fragments. These soils have moderate water-supplying capacities and are well drained.

Group V. The soils of this group formed in saprolite derived from a variety of parent materials ranging from slates to granites, gneisses, schists, and more basic granitic rocks. They are on upland landscapes in the Piedmont and have moderately deep sola. These soils have clayey subsurface horizons, have moderate water-supplying capacities, and are well drained.

Group X. The soils of this group formed in a variety of residual materials, including slates, granites, gneisses, and schists, located on upland landscapes in the Piedmont region. They have moderately deep sola, clayey subsurface horizons, coarse fragments or gravel in some areas, and moderate water-supplying capacities. These soils are well drained or moderately well drained.

Group Y. The soils of this group formed in residuum of weathered limestones, shales, or other carbonate-influenced rocks on upland landscapes in both the mountainous and Piedmont regions. They range from shallow to moderately deep, have clayey subsurface horizons, have coarse fragments in some areas, and have moderate to low water-supplying capacities where shallow to bedrock. These soils are mostly well drained.

Group CC. The soils of this group formed in a range of parent materials that include alluvium, colluvium, and loamy saprolite on a variety of landscapes, including uplands, stream terraces, and colluvial positions to bottomlands. This diverse group of soils occurs across the Piedmont and mountainous regions. The common soil

features are moderately deep sola; clayey-skeletal to coarse-loamy subsurface horizons, some with as much as 70 percent coarse fragments; and moderately low water-supplying capacities. These soils are well drained.

Group EE. The soils of this group formed in loamy sediments in low-lying landscape positions in the Coastal Plain or from local alluvium. They are deep and have coarse-loamy to sandy subsurface horizons. Water tables are typically high in these soils during some part of the year yet the soil textures are very sandy. The drainage is poor or very poor.

Group FF. The soils of this group formed in residual parent materials ranging from sandstone, shales, and slates to loamy granitic saprolite and mountain colluvium. They are on steeply dissected uplands and mountain side slopes and extend across the Piedmont to the mountainous regions. These soils have moderately shallow sola and mostly have loamy-skeletal subsurface horizons that may contain 80 percent, or more, coarse fragments. As a result, the water-supplying capacities are low or very low. The soils are well drained or moderately well drained.

Group GG. The soils of this group formed in cherty limestone or other residuum in ridgetop and side slope positions in the Piedmont and mountainous regions. They are deep to moderately deep; have loamy-skeletal subsurface horizons, typically with greater that 60 percent coarse fragments; have low water-supplying capacities; and are well drained.

Group HH. The soils of this group formed in material ranging from loamy sediments in flood-plain positions in the mountains and Piedmont to finer textured sediments in the Coastal Plain. They are moderately deep, have fine-loamy or clayey subsurface textures, have moderate water-supplying capacities, and are somewhat poorly drained or moderately well drained.

Group II. The soils of this group formed in sandy parent materials within the Coastal Plain or from local alluvium or colluvium of sandy origin. They range from soils with deep sola in the Coastal Plain to soils with shallow sola in upland positions in the mountainous and Piedmont regions. These soils are sandy textured throughout with little horizonation, have low or very low water-supplying capacities, and are well drained or moderately well drained.

Group JJ. The soils of this group formed in a wide variety of residual parent materials ranging from sandstones, shales, and limestones to triassic materials, phillites, and granite saprolite or schists. They are from either the Piedmont or mountainous regions. These soils have shallow sola, have predominantly loamy-skeletal textures throughout, and range from 30 to 70 percent coarse fragments. They have very low water-supplying capacities and are well drained.

Group KK. The soils of this group formed in a variety of residual materials including triassic sediments, residuum from basic rocks, and other clayey sediments. They are located predominantly in the Piedmont region. These soils have moderately deep sola, clayey-textured subsurface horizons, and commonly large components of high shrink-swell clays. These soils have moderate water-supplying capacities and are moderately well drained or somewhat poorly drained.

The management groups for the map units in the survey area are given in the section “Detailed Soil Map Units” and in table 5.

Prime Farmland and Other Important Farmlands

Table 6 lists the map units in the survey area that are considered prime farmland, unique farmland, or farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State,

and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 25,743 acres in the survey area, or just over 8 percent of the total acreage, meets the requirement for prime farmland. This land is mainly on broad, upland ridgetops, on gently sloping colluvial footslopes, and along stream terraces and flood plains of creeks and rivers. A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Hydric Soils

This section lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site *(7, 9)*.

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology *(3, 9, 10, 11)*. Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part *(4)*. These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established *(5)*. These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in “Soil Taxonomy” *(15)* and “Keys to Soil Taxonomy” *(17)* and in the “Soil Survey Manual” *(19)*.

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in the “Field Indicators of Hydric Soils in the United States” *(7)*.

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

The following map units meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This information can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site *(7, 9)*.

29A Hatboro loam, 0 to 2 percent slopes, frequently flooded
35A Nikwasi-Dellwood complex, 0 to 4 percent slopes, frequently flooded

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The following map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

9A	Colvard and Suches soils, 0 to 3 percent slopes, occasionally flooded
11B	Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded
12C	Dillard fine sandy loam, 8 to 15 percent slopes
13B	Dillard-Tugglesgap complex, 2 to 8 percent slopes, rarely flooded
14C	Dillard-Tugglesgap complex, 8 to 15 percent slopes
26A	French loam, 0 to 3 percent slopes, occasionally flooded
27A	French-Dellwood complex, 0 to 4 percent slopes, frequently flooded

Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Table 7, parts I, II, and III, show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of these tables, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the table are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in

the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a

soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

Overland flow of wastewater is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows downslope in a thin film. Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio affect plant growth and microbial activity. Slope, permeability, depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Rapid infiltration of wastewater is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Permeability and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

Slow rate treatment of wastewater is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Forestland Productivity and Management

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood

crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In table 8, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the “National Forestry Manual” *(13)*, which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In table 9, parts I through V, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical. Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Proper planning for timber harvesting is essential to minimize the potential impact to soil and water quality. A harvest plan should include logging roads, log decks, streamside management zones, stream crossings, skid trails, schedule of activities, and Best Management Practices (BMP’s) for each activity. Forests should be managed to increase economic and environmental benefits. A forest stewardship plan should be developed to guide management and utilization of the woodlands.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for fire damage and seedling mortality are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for fire damage or seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the

“National Forestry Manual” *(13)*, which is available in local offices of the Natural Resources Conservation Service or on the Internet.

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil erodibility factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the columns *suitability for hand planting* and *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *suitability for mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1 foot is considered in the ratings.

Ratings in the column *suitability for mechanical site preparation (deep)* are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column *potential for damage to soil by fire* are based on texture of the surface layer, content of rock fragments and organic matter in the surface layer, thickness of the surface layer, and slope. The soils are described as having a low, moderate, or high potential for this kind of damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface layer.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Recreational Development

In table 10, parts I and II, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the table are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Table 11, parts I and II, show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building

site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the

amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Table 12, parts I and II, show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid

waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Table 13, parts I and II, give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Gravel and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 13, part I, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

In table 13, part II, the rating class terms are *good, fair,* and *poor*. The features that limit the soils as sources of reclamation material, roadfill, and topsoil are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of these materials. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate;

reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 14 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Soil Properties

Table 15 gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system *(2)* and the system adopted by the American Association of State Highway and Transportation Officials *(1)*.

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional

refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 16 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^{1}/_{3}$- or $^{1}/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility,

shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity refers to the ability of a soil to transmit water or air. The term “permeability,” as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in micrometers per second, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $^{1}/_{3}$- or $^{1}/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the “National Soil Survey Handbook” *(14)*, which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Soil Properties

Table 17 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Water Features

Table 18 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 19 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories *(15, 17)*. Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 20 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udult (*Ud*, meaning humid, plus *ult*, from Ultisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludults (*Hapl*, meaning minimal horizonation, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludults.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine, mixed, subactive, mesic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The Littlejoe series is an example of fine, mixed, subactive, mesic Typic Hapludults.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each

series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” *(19)* and in the “Field Book for Describing and Sampling Soils” *(16)*. Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” *(15)* and in “Keys to Soil Taxonomy” *(17)*. Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Bellspur Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist, mica gneiss, and amphibolite
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 45 percent

Associated Soils

- Kibler soils, which are deep to a paralithic contact; in similar landform positions
- Trimont soils, which are very deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions
- Widgett soils, which are in a loamy-skeletal textural family, are moderately deep to a lithic contact, and have mixed mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, micaceous, mesic Humic Dystrudepts

Typical Pedon

Bellspur gravelly loam; located 2.0 miles northeast of Vesta, 0.9 mile northeast of the intersection of State Routes 764 and 610, about 0.075 mile east on Hubbard Lane, 400 feet southwest on a ridge to a hayfield, in hayland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 37.00 seconds N. and long. 80 degrees 20 minutes 30.00 seconds W.

A—0 to 8 inches; very dark grayish brown (10YR 3/2) gravelly loam, brown (10YR 5/3) dry; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine and common medium roots; few fine tubular pores; few fine mica flakes; 15 percent subrounded metamorphic gravel; moderately acid; clear wavy boundary.

Bt1—8 to 14 inches; brown (7.5YR 4/4) gravelly loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots; few fine tubular pores; few patchy clay films on all faces of peds; common fine mica flakes; 15 percent subrounded metamorphic gravel; moderately acid; gradual wavy boundary.

Bt2—14 to 23 inches; dark yellowish brown (10YR 4/6) gravelly loam; weak medium subangular blocky structure; very friable, moderately sticky, slightly plastic; common fine and few medium roots; few fine tubular pores; few patchy clay films on all faces of peds; common fine mica flakes; 15 percent subrounded metamorphic gravel; moderately acid; gradual wavy boundary.

BC—23 to 28 inches; dark yellowish brown (10YR 4/6) gravelly fine sandy loam; common medium distinct yellowish brown (10YR 5/4) mottles; weak coarse

subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; common fine mica flakes; 15 percent subrounded metamorphic gravel; moderately acid; gradual wavy boundary.

C1—28 to 32 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; common medium prominent strong brown (7.5YR 5/8) mottles; massive; very friable, nonsticky, nonplastic; few fine roots; common fine mica flakes; 10 percent subrounded metamorphic paragravel and 15 percent subrounded metamorphic gravel; moderately acid; gradual irregular boundary.

C2—32 to 35 inches; strong brown (7.5YR 5/6) gravelly fine sandy loam; many medium distinct dark yellowish brown (10YR 4/6) mottles; massive; very friable, nonsticky, nonplastic; few fine roots; common fine mica flakes; 15 percent subrounded metamorphic paragravel and 20 percent subrounded metamorphic gravel; strongly acid; abrupt irregular boundary.

Cr—35 to 41 inches; weathered gneiss bedrock.

R—41 to 80 inches; unweathered gneiss bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: 40 to 60 inches
Mica content: Few or common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 0 to 35 percent in the surface layer, subsurface layer, and subsoil and 10 to 90 percent in the substratum

A or Ap horizon:
Hue—7.5YR to 2.5Y
Value—3 or less moist and 5 or less dry
Chroma—1 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon (where present):
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—5YR to 10YR (2.5YR in some pedons)
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon:
Hue—5YR to 10YR
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon:
Hue—5YR to 10YR
Value—3 to 6
Chroma—3 to 8 or multicolored
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bluemount Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 45 percent

Associated Soils

- Redbrush soils, which are in a fine textural family; in similar landform positions
- Jackland soils, which are in a fine textural family, are somewhat poorly drained, are very deep to paralithic and lithic contacts, and have smectitic mineralogy; in similar landform positions
- Minnieville soils, which are in a fine textural family, are very deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Bluemount gravelly silt loam; located 3,700 feet north and 25 degrees west of the intersection of State Routes 890 and 882, in woodland, in Franklin County, Virginia; Snow Creek, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 48 minutes 54.70 seconds N. and long. 79 degrees 49 minutes 8.70 seconds W.

A—0 to 4 inches; brown (10YR 4/3) gravelly silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many very fine through medium roots; 5 percent subrounded amphibolite cobbles and 11 percent subrounded amphibolite gravel; strongly acid; clear smooth boundary.

Bt1—4 to 9 inches; dark yellowish brown (10YR 4/6) silt loam; weak fine subangular blocky structure; very friable, nonsticky, slightly plastic; common very fine through very coarse roots; few faint clay films on all faces of peds; 3 percent subrounded amphibolite gravel and 10 percent subrounded amphibolite cobbles; moderately acid; clear smooth boundary.

Bt2—9 to 14 inches; dark yellowish brown (10YR 4/6) silt loam; weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; common very fine through medium roots; common distinct clay films on all faces of peds; 3 percent subrounded amphibolite gravel and 10 percent subrounded amphibolite cobbles; moderately acid; clear smooth boundary.

Bt3—14 to 24 inches; yellowish brown (10YR 5/6) very cobbly clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few very fine through coarse roots; common distinct clay films on all faces of peds and common distinct clay films on rock fragments; 10 percent subrounded amphibolite gravel and 40 percent subrounded amphibolite cobbles; moderately acid; abrupt wavy boundary.

R—24 to 80 inches; unweathered amphibolite bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: None to common

Reaction: Strongly acid to slightly acid, except in limed areas
Rock fragments: 15 to 35 percent in the surface layer, 0 to 50 percent in the subsurface layer and subsoil, and 15 to 50 percent in the substratum
Other characteristics: Some pedons have a Cr/Bt horizon with colors and textures similar to those of the Bt horizon

A horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—2 to 4
Texture (fine-earth)—fine sandy loam, loam, or silt loam

AB or BA horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—fine sandy loam, loam, or silt loam

Bt horizon:
Hue—5YR to 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—loam, silt loam, or clay loam

BC or C horizon (where present):
Hue—7.5YR to 5Y
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or silt loam

Braddock Series

Physiographic province: Blue Ridge and Piedmont
Landform: Fan remnants and high stream terraces
Parent material: Colluvium and alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 25 percent

Associated Soils

- Thurmont soils, which are in a fine-loamy textural family; in similar landform positions
- Dillsboro soils, which have thick dark surface layers; in stream terrace and colluvial fan landform positions
- Dillard soils, which are in a fine-loamy textural family and are moderately well drained; in stream terrace landform positions

Taxonomic Classification

Fine, mixed, semiactive, mesic Typic Hapludults

Typical Pedon

Braddock fine sandy loam; located 5.0 miles north of Elkins, 0.4 mile northwest of the intersection of Secondary Roads 1121 and 1112 on Secondary Road 1121, about 1,500 feet north on a farm road, in cropland, in Surry County, North Carolina; Elkin

North, North Carolina USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 18 minutes 27.00 seconds N. and long. 80 degrees 46 minutes 28.00 seconds W.

Ap—0 to 9 inches; brown (7.5YR 4/4) fine sandy loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; many fine roots; common fine tubular pores; few fine mica flakes; 5 percent subrounded quartz gravel; strongly acid; abrupt wavy boundary.

Bt1—9 to 19 inches; yellowish red (5YR 4/6) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots; few fine tubular pores; common continuous clay films on all faces of peds; common fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; gradual wavy boundary.

Bt2—19 to 34 inches; red (2.5YR 5/6) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine tubular pores; common continuous clay films on all faces of peds; common fine mica flakes; 5 percent subrounded quartz gravel; strongly acid; gradual wavy boundary.

Bt3—34 to 56 inches; red (2.5YR 5/6) clay; common medium prominent yellowish red (5YR 5/8) mottles; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine tubular pores; few continuous clay films on all faces of peds; common fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; gradual wavy boundary.

BC—56 to 60 inches; yellowish red (5YR 5/8) clay loam; common medium prominent strong brown (7.5YR 5/8) mottles; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine mica flakes; 10 percent subrounded quartz gravel; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 25 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Strongly acid to slightly acid, except in limed areas
Rock fragments: 0 to 35 percent in the surface layer, subsurface layer, and upper subsoil and 0 to 60 percent in the lower subsoil and in the substratum

A or Ap horizon:
Hue—5YR to 10YR
Value—2 to 5
Chroma—1 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

E horizon (where present):
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BE or BA horizon (where present):
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—sandy clay loam, clay loam, or clay

Bt horizon:
Hue—10R or 2.5YR; 5YR in some pedons
Value—3 to 5

Chroma—4 to 8; some pedons have reticulate mottling in the lower part of the Bt horizon
Texture (fine-earth)—clay loam, sandy clay, silty clay loam, or clay

BC horizon (where present):
Hue—10R or 2.5YR; 5YR in some pedons
Value—3 to 5
Chroma—6 or 8; some pedons are mottled or streaked in shades of red, yellow, and brown
Texture (fine-earth)—sandy clay loam, clay loam, sandy clay, silty clay loam, or clay

C horizon (where present):
Hue—10R to 7.5YR
Value—3 to 8
Chroma—1 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, clay loam, silty clay loam, clay, or sandy clay

2C horizon (where present):
Hue—10R to 7.5YR
Value—3 to 8
Chroma—1 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, clay loam, silty clay loam, clay, or sandy clay

Bugley Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from graphitic and serecitic schist and phyllite
Drainage class: Somewhat excessively drained
Slowest saturated hydraulic conductivity: High
Depth class: Shallow
Slope range: 45 to 75 percent

Associated Soils

- Goblintown soils, which are in a fine textural family, are well drained, are moderately deep to a paralithic contact, and have thick dark surface layers; in similar landform positions
- Penhook soils, which are in a fine textural family, are well drained, and are very deep to paralithic and lithic contacts; in similar landform positions
- Strawfield soils, which are in a fine textural family, are well drained, and are moderately deep to paralithic and lithic contacts; in similar landform positions
- Littlejoe soils, which are in a fine textural family, are well drained, and are deep to paralithic and lithic contacts; in similar landform positions

Taxonomic Classification

Loamy-skeletal, mixed, semiactive, mesic Lithic Dystrudepts

Typical Pedon

Bugley channery silt loam; located 0.4 mile east (88 degrees) of the intersection of Virginia State Routes 56 and 646, about 1.5 miles southeast (126 degrees) of the intersection of Virginia State Routes 56 and 722, in a loblolly pine plantation, in Nelson County, Virginia; Shipman, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37

degrees 41 minutes 26.00 seconds N. and long. 78 degrees 45 minutes 26.00 seconds W.

Ap—0 to 3 inches; yellowish brown (10YR 5/4) channery silt loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many fine through coarse roots; common fine mica flakes; 25 percent subangular graphitic schist channers; extremely acid; clear smooth boundary.

Bw—3 to 13 inches; yellowish brown (10YR 5/6) very channery silt loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine through coarse roots; common fine mica flakes; 40 percent subangular graphitic schist channers; extremely acid; clear wavy boundary.

Cr—13 to 18 inches; weathered graphitic schist bedrock.

R—18 to 80 inches; unweathered graphitic schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 15 inches
Depth to soft bedrock: 10 to 20 inches (where present)
Depth to hard bedrock: 10 to 20 inches
Mica content: None to many
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 15 to 35 percent in the surface and subsurface layers and 30 to 75 percent in the subsoil and substratum

A horizon:
Hue—10YR or 2.5Y
Value—3 or 4
Chroma—2 to 4
Texture (fine-earth)—silt loam or loam

Bw horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—silt loam

C horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—1 to 8
Texture (fine-earth)—silt loam

Cliffield Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist and mica gneiss
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 90 percent

Associated Soils

- Cowee soils, which are in a fine-loamy textural family, are moderately deep to a paralithic contact, are deep to a lithic contact, and have parasesquic mineralogy; in similar landform positions

- Edneyville soils, which are in a coarse-loamy textural family and are very deep to paralithic and lithic contacts; in similar landform positions
- Evard soils, which are in a fine-loamy textural family, are very deep to paralithic and lithic contacts, and have parasesquic mineralogy; in similar landform positions
- Peaks soils, which are somewhat excessively drained; in similar landform positions

Taxonomic Classification

Loamy-skeletal, mixed, subactive, mesic Typic Hapludults

Typical Pedon

Cliffield very cobbly fine sandy loam; located 4,250 feet north and 63 degrees east of the intersection of State Routes 1479 and 1460, in woodland, in Surry County, North Carolina; Roaring Gap, North Carolina USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 27 minutes 31.00 seconds N. and long. 80 degrees 57 minutes 37.00 seconds W.

A—0 to 3 inches; brown (10YR 4/3) very cobbly fine sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; common fine and medium and few coarse roots; common fine tubular pores; few fine mica flakes; 1 percent subangular mica schist flagstones, 3 percent subangular mica schist stones, 20 percent subangular mica schist gravel, and 35 percent subangular mica schist cobbles; extremely acid; clear smooth boundary.

BA—3 to 6 inches; brown (10YR 4/3) very cobbly loam; weak fine subangular blocky structure parting to weak medium granular; very friable, nonsticky, nonplastic; common fine and medium and few coarse roots; common fine tubular pores; few fine mica flakes; 1 percent subangular mica schist flagstones, 1 percent subangular mica schist stones, 20 percent subangular mica schist gravel, and 25 percent subangular mica schist cobbles; very strongly acid; clear smooth boundary.

Bt1—6 to 15 inches; brown (7.5YR 5/4) very cobbly sandy clay loam; moderate medium subangular blocky structure; friable, moderately sticky, slightly plastic; common fine and medium and few coarse roots; common fine tubular pores; few distinct clay films on all faces of peds; common fine mica flakes; 2 percent subangular mica schist flagstones, 20 percent subangular mica schist gravel, and 25 percent subangular mica schist cobbles; extremely acid; gradual wavy boundary.

Bt2—15 to 23 inches; yellowish red (5YR 4/6) extremely cobbly sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, slightly plastic; few fine through coarse roots; common fine tubular pores; few distinct clay films on all faces of peds; common fine mica flakes; 1 percent subangular mica schist stones, 4 percent subangular mica schist flagstones, 30 percent subangular mica schist gravel, and 35 percent subangular mica schist cobbles; very strongly acid; abrupt wavy boundary.

R—23 to 80 inches; unweathered mica schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: Few or common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 35 to 60 percent in the surface layer, 15 to 80 percent in the subsurface layer, and 25 to 80 percent in the subsoil and substratum

A horizon:
Hue—5YR to 10YR
Value—3 to 5
Chroma—2 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 or 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

C horizon (where present):
Hue—5YR to 10YR or multicolored
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loamy sand, sandy loam, or fine sandy loam

Clifford Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from mica schist, mica gneiss, and metagrawacke
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 15 percent

Associated Soils

- Woolwine soils, which are moderately deep to paralithic and lithic contacts; in similar landform positions
- Fairview soils, which have a thinner solum; in similar landform positions
- Penhook soils, which have mixed mineralogy; in similar landform positions
- Strawfield soils, which are moderately deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions
- Littlejoe soils, which are deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions

Taxonomic Classification

Fine, kaolinitic, mesic Typic Kanhapludults

Typical Pedon

Clifford loam; located 2,150 feet south and 50 degrees east of the intersection of State Routes 606 and 607, in woodland, in Franklin County, Virginia; Rocky Mount, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 55 minutes 10.70 seconds N. and long. 79 degrees 57 minutes 1.50 seconds W.

A—0 to 7 inches; brown (7.5YR 4/4) loam; weak fine granular structure; very friable, slightly hard, slightly sticky, slightly plastic; common very fine through coarse

roots; few fine mica flakes; 10 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

Bt1—7 to 11 inches; yellowish red (5YR 4/6) clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine and fine and few medium and coarse roots; few faint clay films on all faces of peds; few fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; clear wavy boundary.

Bt2—11 to 33 inches; red (2.5YR 4/6) clay; moderate fine subangular blocky structure; friable, moderately sticky, slightly plastic; common very fine and fine and few medium and coarse roots; many distinct clay films on all faces of peds; common fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; gradual wavy boundary.

Bt3—33 to 54 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common very fine and fine roots; many distinct clay films on all faces of peds; many fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; gradual wavy boundary.

BCt—54 to 62 inches; red (2.5YR 4/6) clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common distinct clay films on all faces of peds; many fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; gradual wavy boundary.

C—62 to 82 inches; strong brown (7.5YR 4/6), dark red (2.5YR 3/6), and red (2.5YR 4/6) fine sandy loam; massive; very friable, slightly sticky, slightly plastic; many fine mica flakes; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Kandic horizon, 25 to 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few to many
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent throughout the profile

A or Ap horizon:
Hue—5YR to 10YR
Value—3 to 5
Chroma—4 or 6
Texture (fine-earth)—fine sandy loam or loam

BA horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon:
Hue—2.5YR or 5YR; 5YR colors are restricted to individual subhorizons
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam or clay

BC or BCt horizon:
Hue—2.5YR or 5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

C horizon:
Hue—2.5YR to 7.5YR or multicolored
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam, loam, or clay loam

Colvard Series

Physiographic province: Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 3 percent

Associated Soils

- Dellwood soils, which are in a sandy-skeletal textural family and are moderately well drained; in similar landform positions
- French soils, which are in a fine-loamy over sandy or sandy-skeletal textural family and are moderately well drained; in similar landform positions
- Nikwasi soils, which are in a coarse-loamy over sandy or sandy-skeletal textural family, are very poorly drained, and have thick dark surface layers; in similar landform positions
- Suches soils, which are in a fine-loamy textural family and are moderately well drained; in similar landform positions

Taxonomic Classification

Coarse-loamy, mixed, active, nonacid, mesic Typic Udifluvents

Typical Pedon

Colvard fine sandy loam; located 5,125 feet north and 2,500 feet east of the intersection of Virginia State Routes 622 and the Smyth River on the west side of the river, in a hayfield, in Henry County, Virginia; Northeast Eden, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 34 minutes 24.00 seconds N. and long. 79 degrees 44 minutes 15.00 seconds W.

Ap—0 to 12 inches; brown (7.5YR 4/3) fine sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine roots; common fine mica flakes; moderately acid; abrupt smooth boundary.
C1—12 to 25 inches; brown (7.5YR 4/4) fine sandy loam; massive; friable, nonsticky, nonplastic; few very fine roots; common fine mica flakes; strongly acid; clear smooth boundary.
C2—25 to 35 inches; brown (7.5YR 4/3) fine sandy loam; massive; very friable, nonsticky, nonplastic; few very fine roots; common fine mica flakes; 5 percent rounded quartz gravel; moderately acid; clear smooth boundary.
C3—35 to 43 inches; brown (10YR 4/3) fine sandy loam; massive; friable, nonsticky, nonplastic; common fine mica flakes; strongly acid; gradual smooth boundary.
C4—43 to 62 inches; dark yellowish brown (10YR 4/4) fine sandy loam; massive; friable, nonsticky, nonplastic; common fine mica flakes; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon: There are no diagnostic subsurface features
Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches
Mica content: Few or common
Reaction: Strongly acid to slightly alkaline, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer, subsurface layer, subsoil, and substratum

Ap horizon:
Hue—7.5YR or 10YR
Value—3 or 4; if value is 3, the horizon is less than 6 inches thick
Chroma—2 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam with thin strata of sand or loamy sand below a depth of 40 inches

Comments

Gravelly or very gravelly strata occur in some pedons below a depth of 40 inches. Some pedons have gray iron depletions below a depth of 40 inches.

Comus Series

Physiographic province: Piedmont
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 4 percent

Associated Soils

- Hatboro soils, which are in a fine-loamy textural family and are poorly drained; in similar landform positions
- Elsinboro soils, which are in a fine-loamy textural family; in stream terrace landform positions

Taxonomic Classification

Coarse-loamy, mixed, active, mesic Fluventic Dystrudepts

Typical Pedon

Comus fine sandy loam; located 1,175 feet south and 64 degrees east of the intersection of State Routes 602 and 641, in a hayfield, in Franklin County, Virginia; Callaway, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37 degrees 0 minutes 33.30 seconds N. and long. 80 degrees 2 minutes 46.40 seconds W.

Ap—0 to 12 inches; brown (10YR 4/3) fine sandy loam; weak fine and medium granular structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine tubular pores; common fine mica flakes; neutral; abrupt smooth boundary.
Bw1—12 to 27 inches; brown (7.5YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine tubular pores; common fine mica flakes; neutral; clear smooth boundary.

Bw2—27 to 47 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; few very fine roots; few coarse tubular pores; common fine mica flakes; strongly acid; gradual smooth boundary.
C1—47 to 56 inches; dark yellowish brown (10YR 4/4) loamy sand; single grain; very friable, nonsticky, nonplastic; few fine through very coarse roots; many fine and medium mica flakes; 5 percent rounded quartz gravel; strongly acid; clear smooth boundary.
C2—56 to 62 inches; dark yellowish brown (10YR 4/4), pale brown (10YR 6/3), and light brownish gray (10YR 6/2) loamy sand; single grain; very friable, nonsticky, nonplastic; few fine through very coarse roots; many fine and medium mica flakes; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 10 to 40 inches or more
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few to many
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent above a depth of 40 inches and 0 to 35 percent below a depth of 40 inches

A or Ap horizon:
Hue—7.5YR or 10YR
Value—3 or 4
Chroma—3 or 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—7.5YR to 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 to 6
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Cowee Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist and mica gneiss
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 2 to 45 percent

Associated Soils

- Cliffield soils, which are in a loamy-skeletal textural family, are moderately deep to a lithic contact, and have mixed mineralogy; in similar landform positions
- Edneyville soils, which are in a coarse-loamy textural family, are very deep to

paralithic and lithic contacts, and have mixed mineralogy; in similar landform positions
- Evard soils, which are very deep to paralithic and lithic contacts; in similar landform positions
- Peaks soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, are moderately deep to a lithic contact, and have mixed mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, parasesquic, mesic Typic Hapludults

Typical Pedon

Cowee cobbly loam; located 6,700 feet north and 53 degrees west of the intersection of State Routes 8 and 640, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 42 minutes 39.00 seconds N. and long. 80 degrees 16 minutes 20.00 seconds W.

A—0 to 3 inches; dark brown (7.5YR 3/4) cobbly loam; weak medium granular structure; very friable, nonsticky, nonplastic; few very fine and fine roots; few fine mica flakes; 1 percent subrounded mica gneiss stones, 10 percent subrounded mica gneiss cobbles, and 10 percent subrounded mica gneiss gravel; very strongly acid; clear smooth boundary.

BA—3 to 6 inches; yellowish red (5YR 4/6) gravelly loam; weak fine subangular blocky structure; very friable, moderately sticky, slightly plastic; few very fine and fine roots; few fine mica flakes; 5 percent subrounded mica gneiss cobbles and 11 percent subrounded mica gneiss gravel; very strongly acid; clear smooth boundary.

Bt—6 to 18 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few very fine and fine roots; common faint clay films on all faces of peds; common fine mica flakes; 10 percent subrounded mica gneiss gravel; very strongly acid; gradual wavy boundary.

BC—18 to 23 inches; red (2.5YR 5/6) fine sandy loam; weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; common fine mica flakes; 10 percent subrounded mica gneiss gravel; strongly acid; gradual wavy boundary.

C—23 to 30 inches; yellowish red (5YR 5/6) gravelly fine sandy loam; massive; very friable, nonsticky, nonplastic; common fine mica flakes; 16 percent subrounded mica gneiss gravel; strongly acid; abrupt irregular boundary.

Cr—30 to 43 inches; weathered mica gneiss bedrock.

R—43 to 80 inches; unweathered mica gneiss bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 30 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: 40 to 60 inches
Mica content: Few or common
Reaction: Extremely acid to moderately acid, except in limed areas
Rock fragments: 15 to 40 percent in the surface layer and 0 to 35 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—5YR to 10YR
Value—3 to 5

Chroma—2 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon:
Hue—5YR or 7.5YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—2.5YR or 5YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon:
Hue—2.5YR to 7.5YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam, loam, or sandy clay loam

C horizon:
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Cullasaja Series

Physiographic province: Blue Ridge
Landform: Drainageways and fans on mountain slopes
Parent material: Colluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 8 to 45 percent

Associated Soils

- Tuckasegee soils, which are in a fine-loamy textural family; in similar landform positions
- Thunder soils, which have mixed mineralogy; in similar landform positions
- Statler soils, which are in a fine-loamy textural family and have mixed mineralogy; in stream terrace landform positions
- Tugglesgap soils, which are somewhat poorly drained and have mixed mineralogy; in similar landform positions
- Braddock soils, which are in a fine textural family and have mixed mineralogy; in similar landform positions
- Thurmont soils, which are in a fine-loamy textural family and have mixed mineralogy; in similar landform positions
- Dillsboro soils, which are in a fine textural family and have mixed mineralogy; in similar landform positions
- Dillard soils, which are in a fine-loamy textural family, are moderately well drained, and have mixed mineralogy; in stream terrace landform positions

Taxonomic Classification

Loamy-skeletal, isotic, mesic Humic Dystrudepts

Typical Pedon

Cullasaja channery mucky loam; located 8,300 feet north and 82 degrees east of the intersection of State Routes 600 and 614, in woodland, in Patrick County, Virginia; Meadows of Dan, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 40 minutes 16.00 seconds N. and long. 80 degrees 26 minutes 40.00 seconds W.

A1—0 to 3 inches; black (10YR 2/1) channery mucky loam; moderate medium granular structure; very friable, nonsticky, nonplastic; common fine through coarse roots; few fine tubular pores; common fine mica flakes; 10 percent subrounded gravel and 20 percent subangular channers; very strongly acid; clear wavy boundary.

A2—3 to 7 inches; very dark brown (10YR 2/2) channery loam; weak medium and coarse granular structure; friable, nonsticky, nonplastic; common fine through coarse roots; few fine tubular pores; common fine mica flakes; 10 percent subrounded gravel and 20 percent subangular channers; strongly acid; clear wavy boundary.

Bw1—7 to 16 inches; dark brown (10YR 3/3) channery loam; weak fine and medium subangular blocky structure; friable, nonsticky, nonplastic; common fine through coarse roots; few fine tubular pores; common fine mica flakes; 5 percent subrounded gravel and 20 percent subangular channers; strongly acid; gradual wavy boundary.

Bw2—16 to 23 inches; dark yellowish brown (10YR 4/4) channery fine sandy loam; weak fine and medium subangular blocky structure; friable, nonsticky, nonplastic; few fine through coarse roots; few coarse tubular pores; common fine mica flakes; 5 percent subrounded gravel and 20 percent subangular channers; strongly acid; gradual wavy boundary.

Bw3—23 to 47 inches; dark yellowish brown (10YR 4/4) very channery fine sandy loam; weak fine and medium subangular blocky structure; friable, nonsticky, nonplastic; few fine through coarse roots; few coarse tubular pores; common fine mica flakes; 5 percent subrounded stones, 10 percent subrounded gravel, and 35 percent subangular channers; strongly acid; gradual wavy boundary.

BC—47 to 60 inches; dark yellowish brown (10YR 4/4) very channery fine sandy loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few fine through coarse roots; common fine mica flakes; 5 percent subrounded gravel, 10 percent subrounded stones, and 25 percent subangular channers; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 20 to 60 inches or more

Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches

Mica content: Few or common

Reaction: Very strongly acid to moderately acid, except in limed areas

Rock fragments: 10 to 40 percent in the surface layer, 10 to 60 percent in the subsurface layer, 10 to 70 percent in the subsoil, and 15 to 70 percent in the substratum

A horizon:

Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AB or BA horizon (where present):

Hue—7.5YR or 10YR

Value—3 or 4
Chroma—3 or 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BC horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon (where present):
Hue—7.5YR or 10YR or multicolored
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Dellwood Series

Physiographic province: Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 4 percent

Associated Soils

- Colvard soils, which are in a coarse-loamy textural family and are well drained; in similar landform positions
- French soils, which are in a fine-loamy over sandy or sandy-skeletal textural family; in similar landform positions
- Nikwasi soils, which are in a coarse-loamy over sandy or sandy-skeletal textural family, are very poorly drained, and have thick dark surface layers; in similar landform positions
- Suches soils, which are in a fine-loamy textural family; in similar landform positions

Taxonomic Classification

Sandy-skeletal, mixed, mesic Oxyaquic Dystrudepts

Typical Pedon

Dellwood cobbly sandy loam; located 1,600 feet north and 5 degrees west of the intersection of State Routes 610 and 764, in a wooded pasture, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 33.00 seconds N. and long. 80 degrees 21 minutes 48.00 seconds W.

A1—0 to 8 inches; very dark grayish brown (10YR 3/2) cobbly sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine through coarse roots; few fine mica flakes; 15 percent subrounded gravel and 15 percent subrounded cobbles; strongly acid; clear wavy boundary.
A2—8 to 14 inches; dark yellowish brown (10YR 3/4) very cobbly sandy loam; weak

fine granular structure; very friable, nonsticky, nonplastic; few fine through coarse roots; few fine mica flakes; 15 percent subrounded gravel and 30 percent subrounded cobbles; very strongly acid; clear wavy boundary.

Bw—14 to 18 inches; dark yellowish brown (10YR 4/4) cobbly sandy loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; common fine mica flakes; 15 percent subrounded gravel and 15 percent subrounded cobbles; strongly acid; clear wavy boundary.

C1—18 to 31 inches; brown (10YR 4/3) very cobbly loamy sand; single grain; loose, nonsticky, nonplastic; common fine mica flakes; 5 percent rounded stones, 20 percent subrounded gravel, and 30 percent subrounded cobbles; moderately acid; gradual wavy boundary.

C2—31 to 60 inches; brown (10YR 5/3) very cobbly loamy sand; single grain; loose, nonsticky, nonplastic; common fine mica flakes; 16 percent subrounded gravel and 20 percent subrounded cobbles; moderately acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 20 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 15 to 35 percent in the surface layer, 15 to 60 percent in individual subsurface and subsoil horizons, and 15 to 65 percent in the substratum
Redoximorphic features: Shades of red, brown, yellow, or gray in the subsoil and substratum

A1 or Ap horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sandy loam or fine sandy loam

A2, AB, BA, or AC horizon:
Hue—7.5YR or 10YR
Value—3
Chroma—2 to 4
Texture (fine-earth)—sand, loamy sand, sandy loam, or fine sandy loam

Bw horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 or 6
Texture (fine-earth)—sandy loam or fine sandy loam

C horizon:
Hue—7.5YR to 2.5Y or multicolored
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—sand or loamy sand

Dillard Series

Physiographic province: Blue Ridge
Landform: Alluvial fans and stream terraces
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Moderately well drained

Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 15 percent

Associated Soils

- Statler soils, which are well drained and have thick dark surface layers; in similar landform positions
- Cullasaja soils, which are in a loamy-skeletal textural family, are well drained, have isotic mineralogy, and have thick dark surface layers; in similar landform positions
- Tuckasegee soils, which are well drained, have isotic mineralogy, and have thick dark surface layers; in similar landform positions
- Thunder soils, which are in a loamy-skeletal textural family, are well drained, and have thick dark surface layers; in similar landform positions
- Tugglesgap soils, which are in a loamy-skeletal textural family and are somewhat poorly drained; in similar landform positions
- Braddock soils, which are in a fine textural family and are well drained; in similar landform positions
- Thurmont soils, which are well drained; in similar landform positions
- Dillsboro soils, which are in a fine textural family, are well drained, and have thick dark surface layers; in similar landform positions

Taxonomic Classification

Fine-loamy, mixed, semiactive, mesic Aquic Hapludults

Typical Pedon

Dillard fine sandy loam; located 6.0 miles north of Dobson, 0.1 mile northwest of the intersection of Secondary Roads 1397 and 1399 on Secondary Road 1397, about 0.6 mile east on a farm road holding to the right forks, 80 feet west of the farm road, in cropland, in Surry County, North Carolina; Dobson, North Carolina USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 28 minutes 44.00 seconds N. and long. 80 degrees 44 minutes 32.00 seconds W.

Ap—0 to 10 inches; yellowish brown (10YR 5/4) fine sandy loam; moderate medium granular structure; friable, nonsticky, nonplastic; many fine roots; few fine tubular pores; few fine mica flakes; 5 percent rounded quartz gravel; moderately acid; abrupt wavy boundary.

Bt1—10 to 19 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate coarse angular blocky structure parting to weak medium subangular blocky; friable, slightly sticky, slightly plastic; common fine roots; common fine tubular pores; common distinct continuous clay films on vertical faces of peds and common distinct silt coats on vertical faces of peds; few fine mica flakes; 1 percent rounded quartz gravel; moderately acid; gradual wavy boundary.

Bt2—19 to 24 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots; common fine tubular pores; few distinct discontinuous clay films on vertical faces of peds; common medium prominent irregular strong brown (7.5YR 5/8) masses of oxidized iron; common fine mica flakes; 1 percent rounded quartz gravel; strongly acid; gradual wavy boundary.

Bt3—24 to 30 inches; light olive brown (2.5Y 5/4) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; few fine roots; few fine tubular pores; few faint discontinuous clay films on all faces of peds; many medium prominent irregular yellowish red (5YR 5/8) masses of oxidized iron; common fine mica flakes; strongly acid; gradual wavy boundary.

Bt4—30 to 48 inches; light olive brown (2.5Y 5/4) clay; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; few fine roots; few fine

tubular pores; few faint discontinuous clay films on all faces of peds; common medium prominent irregular red (2.5YR 4/8) and many medium prominent irregular yellowish red (5YR 5/8) masses of oxidized iron and common medium distinct irregular light brownish gray (2.5Y 6/2) iron depletions; common fine mica flakes; 1 percent rounded quartz gravel; very strongly acid; gradual wavy boundary.

BCg—48 to 53 inches; light brownish gray (10YR 6/2) clay loam; weak coarse subangular blocky structure; firm, moderately sticky, moderately plastic; many coarse prominent irregular reddish yellow (7.5YR 6/8) and strong brown (7.5YR 5/6) masses of oxidized iron; common fine mica flakes; 1 percent rounded quartz gravel; very strongly acid; gradual irregular boundary.

Cg—53 to 62 inches; light gray (10YR 7/1) clay loam; common coarse prominent grayish brown (10YR 5/2) mottles; massive; firm, moderately sticky, moderately plastic; few medium prominent irregular red (2.5YR 5/8) and light yellowish brown (10YR 6/4) masses of oxidized iron; common fine mica flakes; 1 percent rounded quartz gravel; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 25 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 5 percent in the surface layer, 0 to 15 percent in individual subsurface and subsoil horizons, and 0 to 35 percent in the substratum
Redoximorphic features: Shades of red, brown, yellow, or gray in the subsoil and substratum

A or Ap horizon:
Hue—10YR
Value—3 to 5
Chroma—1 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

E horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BE or BA horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, clay loam, or clay (below the control section)

Btg, 2Btg, BCg, or 2BCg horizon:
Hue—10YR
Value—5 to 7

Chroma—1 or 2
Texture (fine-earth)—loam, sandy clay loam, clay loam, or clay

C or 2C horizon (where present):
Hue—10YR to 5Y
Value—5 to 7
Chroma—3 to 8
Texture (fine-earth)—sand to clay

Cg or 2Cg horizon:
Hue—10YR to 5Y
Value—5 to 7
Chroma—1 or 2
Texture (fine-earth)—sand to clay

Dillsboro Series

Physiographic province: Blue Ridge
Landform: Alluvial fans and stream terraces
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 25 percent

Associated Soils

- Statler soils, which are in a fine-loamy textural family; in similar landform positions
- Cullasaja soils, which are in a loamy-skeletal textural family and have isotic mineralogy; in similar landform positions
- Tuckasegee soils, which are in a fine-loamy textural family and have isotic mineralogy; in similar landform positions
- Thunder soils, which are in a loamy-skeletal textural family; in similar landform positions
- Tugglesgap soils, which are in a loamy-skeletal textural family and are somewhat poorly drained; in similar landform positions
- Braddock soils in similar landform positions
- Thurmont soils, which are in a fine-loamy textural family; in similar landform positions
- Dillard soils, which are in a fine-loamy textural family and are moderately well drained; in similar landform positions

Taxonomic Classification

Fine, mixed, semiactive, mesic Humic Hapludults

Typical Pedon

Dillsboro loam; located 0.6 mile southeast of Vesta, 0.4 mile south of the intersection of State Route 639 and U.S. Highway 58, about 800 feet east of State Route 639, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 42 minutes 30.00 seconds N. and long. 80 degrees 21 minutes 18.00 seconds W.

Ap—0 to 10 inches; dark brown (7.5YR 3/4) loam; moderate medium granular structure; friable, nonsticky, nonplastic; few fine mica flakes; 2 percent subrounded metamorphic cobbles and 5 percent subrounded metamorphic gravel; strongly acid; clear irregular boundary.

Bt1—10 to 13 inches; yellowish red (5YR 4/8) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine tubular pores; few discontinuous clay films on all faces of peds; few fine mica flakes; 2 percent subrounded metamorphic cobbles and 10 percent subrounded metamorphic gravel; strongly acid; gradual wavy boundary.

Bt2—13 to 21 inches; yellowish red (5YR 5/8) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few discontinuous clay films on all faces of peds; few fine mica flakes; 2 percent subrounded metamorphic cobbles and 10 percent subrounded metamorphic gravel; strongly acid; gradual wavy boundary.

Bt3—21 to 39 inches; yellowish red (5YR 5/8) clay; common coarse prominent yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few discontinuous clay films on all faces of peds; common fine mica flakes; 5 percent subrounded metamorphic gravel; strongly acid; gradual wavy boundary.

Bt4—39 to 45 inches; yellowish brown (10YR 5/8) clay loam; common coarse prominent yellowish red (5YR 5/8) mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few discontinuous clay films on all faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.

BC—45 to 60 inches; yellowish brown (10YR 5/8) loam; common medium prominent yellowish red (5YR 5/8) mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine mica flakes; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 20 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 35 percent in the surface layer, subsurface layer, and upper subsoil and 0 to 60 percent in the lower subsoil and in the substratum

A or Ap horizon:
Hue—5YR to 10YR
Value—2 or 3
Chroma—1 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or sandy clay loam

BA horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy clay loam or clay loam

Bt or 2Bt horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—clay loam or clay

BC or 2BC horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay

C or 2C horizon (where present):
Hue—5YR to 10YR
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—sand to clay

Edneyville Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from granitic gneiss, biotite augen gneiss, flaser gneiss, granulite, and other resistant rocks
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 15 to 45 percent

Associated Soils

- Cliffield soils, which are in a loamy-skeletal textural family and are moderately deep to a lithic contact; in similar landform positions
- Cowee soils, which are in a fine-loamy textural family, are moderately deep to a paralithic contact, are deep to a lithic contact, and have parasesquic mineralogy; in similar landform positions
- Evard soils, which are in a fine-loamy textural family and have parasesquic mineralogy; in similar landform positions
- Peaks soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, and are moderately deep to a lithic contact; in similar landform positions

Taxonomic Classification

Coarse-loamy, mixed, active, mesic Typic Dystrudepts

Typical Pedon

Edneyville gravelly loam; located 8,000 feet south and 27 degrees west of the intersection of State Routes 602 and 643, in woodland, in Franklin County, Virginia; Callaway, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37 degrees 5 minutes 37.00 seconds N. and long. 80 degrees 6 minutes 31.00 seconds W.

Oe—0 to 1 inch; moderately decomposed plant material.
A—1 to 6 inches; brown (10YR 4/3) gravelly loam; moderate fine granular structure; very friable, slightly sticky, nonplastic; many very fine and fine and common medium and coarse roots; 18 percent subrounded granulite gravel; very strongly acid; clear smooth boundary.
Bw—6 to 29 inches; strong brown (7.5YR 4/6) loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine and fine and few medium and coarse roots; few fine mica flakes; 10 percent subrounded granulite gravel; very strongly acid; gradual wavy boundary.
C—29 to 61 inches; dark yellowish brown (10YR 4/4) fine sandy loam; massive; friable, nonsticky, nonplastic; few fine through very coarse roots; common fine mica flakes; 10 percent subrounded granulite gravel; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 15 to 55 inches or more
Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 10 to 35 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 or 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BC horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon:
Hue—7.5YR or 10YR or multicolored
Value—4 to 6
Chroma—4 or 6
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Elsinboro Series

Physiographic province: Piedmont
Landform: Stream terraces
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 4 percent

Associated Soils

- Comus soils, which are in a coarse-loamy textural family; on flood plains
- Hatboro soils, which are poorly drained; on flood plains

Taxonomic Classification

Fine-loamy, mixed, semiactive, mesic Typic Hapludults

Typical Pedon

Elsinboro loam; located 9,850 feet south and 75 degrees west of the intersection of State Route 646 and the Pigg River (Fralin Bridge), in a soybean field, in Franklin County, Virginia; Penhook, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 55 minutes 36.10 seconds N. and long. 79 degrees 44 minutes 57.50 seconds W.

Ap—0 to 11 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable,

slightly hard, slightly sticky, slightly plastic; few fine and common very fine roots; strongly acid; abrupt smooth boundary.

Bt1—11 to 25 inches; strong brown (7.5YR 5/6) clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots; few faint clay films on all faces of peds; common fine mica flakes; strongly acid; gradual smooth boundary.

Bt2—25 to 38 inches; strong brown (7.5YR 5/6) sandy clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots; few faint clay films on all faces of peds; common fine mica flakes; strongly acid; gradual smooth boundary.

C—38 to 60 inches; brown (7.5YR 5/4) sandy loam; massive; very friable, slightly sticky, nonplastic; common fine mica flakes; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid or strongly acid, except in limed areas
Rock fragments: 0 to 15 percent throughout the profile

A or Ap horizon:
Hue—7.5YR or 10YR
Value—3 or 4
Chroma—3 or 4
Texture (fine-earth)—fine sandy loam or loam

BA or AB horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon:
Hue—5YR to 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

C horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Evard Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist and mica gneiss

Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 90 percent

Associated Soils

- Cliffield soils, which are in a loamy-skeletal textural family, are moderately deep to a lithic contact, and have mixed mineralogy; in similar landform positions
- Cowee soils, which are moderately deep to a paralithic contact and deep to a lithic contact; in similar landform positions
- Edneyville soils, which are in a coarse-loamy textural family and have mixed mineralogy; in similar landform positions
- Peaks soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, are moderately deep to a lithic contact, and have mixed mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, parasesquic, mesic Typic Hapludults

Typical Pedon

Evard gravelly fine sandy loam; located 3,200 feet north and 33 degrees west of the intersection of State Routes 40 and 716, in a cutover, in Patrick County, Virginia; Charity, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 50 minutes 46.00 seconds N. and long. 80 degrees 13 minutes 23.00 seconds W.

A—0 to 4 inches; dark brown (7.5YR 3/4) gravelly fine sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; few fine mica flakes; 1 percent subrounded gneiss stones, 10 percent subrounded gneiss cobbles, and 21 percent subrounded gneiss gravel; very strongly acid; clear wavy boundary.

BA—4 to 7 inches; yellowish red (5YR 4/6) gravelly loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine mica flakes; 5 percent subrounded gneiss cobbles and 20 percent subrounded gneiss gravel; very strongly acid; clear wavy boundary.

Bt1—7 to 14 inches; yellowish red (5YR 4/6) gravelly clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common distinct clay films on all faces of peds; common fine mica flakes; 1 percent subrounded gneiss cobbles and 15 percent subrounded gneiss gravel; very strongly acid; gradual wavy boundary.

Bt2—14 to 28 inches; red (2.5YR 4/8) gravelly clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few faint clay films on all faces of peds; common fine mica flakes; 16 percent subrounded gneiss gravel; very strongly acid; gradual wavy boundary.

BC—28 to 33 inches; red (2.5YR 4/6) gravelly fine sandy loam; weak coarse subangular blocky structure; very friable, slightly sticky, slightly plastic; common fine mica flakes; 16 percent subrounded gneiss gravel; very strongly acid; gradual wavy boundary.

C1—33 to 49 inches; red (2.5YR 4/6) gravelly fine sandy loam; massive; very friable, nonsticky, nonplastic; common fine mica flakes; 16 percent subrounded gneiss gravel; strongly acid; gradual wavy boundary.

C2—49 to 72 inches; yellowish red (5YR 5/6) gravelly fine sandy loam; massive; very friable, nonsticky, nonplastic; common fine mica flakes; 16 percent subrounded gneiss gravel; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 30 inches

Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common in the surface layer, subsurface layer, and upper subsoil and none to many in the lower subsoil and in the substratum
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 15 to 40 percent in the surface layer and 0 to 35 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—5YR to 10YR
Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon:
Hue—2.5YR to 10YR
Value—4 to 8
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon:
Hue—2.5YR or 5YR
Value—4 to 8
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon:
Hue—2.5YR or 5YR
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

C horizon:
Hue—2.5YR to 10YR or multicolored
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loamy sand, sandy loam, or fine sandy loam

Fairview Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 45 percent

Associated Soils

- Woolwine soils, which are moderately deep to paralithic and lithic contacts; in similar landform positions
- Clifford soils, which have a thicker solum; in similar landform positions
- Bugley soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, are shallow to a lithic contact, and have mixed mineralogy; in similar landform positions

- Goblintown soils, which are moderately deep to a paralithic contact, have mixed mineralogy, and have thick dark surface layers; in similar landform positions
- Penhook soils, which have mixed mineralogy; in similar landform positions
- Strawfield soils, which are moderately deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions
- Littlejoe soils, which are deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions

Taxonomic Classification

Fine, kaolinitic, mesic Typic Kanhapludults

Typical Pedon

Fairview sandy clay loam; located 2.5 miles west of Dobson, 1,000 feet northwest of the intersection of Secondary Roads 1001 and 1124, in a pasture, in Surry County, North Carolina; Bottom, North Carolina USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 24 minutes 3.00 seconds N. and long. 80 degrees 46 minutes 25.00 seconds W.

Ap1—0 to 4 inches; brown (7.5YR 4/4) crushed sandy clay loam; weak medium granular structure; friable, slightly sticky, slightly plastic; many fine roots throughout; 1 percent angular schist gravel and 4 percent angular quartz gravel; moderately acid; clear wavy boundary.

Ap2—4 to 9 inches; strong brown (7.5YR 4/6) crushed sandy clay loam; weak fine and medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; few fine moderate-continuity tubular pores; few fine red (2.5YR 4/8), moist, clay bodies; few fine mica flakes; 1 percent angular schist gravel and 4 percent angular quartz gravel; moderately acid; clear wavy boundary.

Bt—9 to 24 inches; red (2.5YR 4/8) broken face clay; moderate medium subangular blocky structure; firm, slightly sticky, moderately plastic; few fine roots throughout; common fine moderate-continuity tubular pores; common faint discontinuous red (2.5YR 5/8), moist, clay films on all faces of peds; common fine mica flakes; 1 percent angular quartz gravel; strongly acid; gradual wavy boundary.

BCt—24 to 29 inches; red (2.5YR 4/8) broken face clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; very few faint discontinuous red (2.5YR 5/8), moist, clay films on vertical faces of peds; common fine mica flakes; 2 percent angular schist gravel, 4 percent angular quartz gravel, and 5 percent angular schist channers; strongly acid; gradual wavy boundary.

C—29 to 79 inches; red (10R 5/6) broken face loam; massive; friable, slightly sticky, slightly plastic; few fine roots throughout; common fine moderate-continuity tubular pores; common fine mica flakes; 1 percent angular schist gravel, 2 percent angular quartz gravel, and 10 percent angular schist channers; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Kandic horizon, 10 to 25 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common in the surface layer, subsurface layer, and subsoil and few to many in the substratum
Reaction: Extremely acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 20 percent in the subsurface layer, subsoil, and substratum

A or Ap horizon:
Hue—5YR to 10YR

Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam; eroded phases include sandy clay loam or clay loam

BE or BA horizon (where present):
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon:
Hue—10YR or 5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam or clay

BC or BCt horizon:
Hue—10R to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

C horizon:
Hue—10YR to 7.5YR or multicolored
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Fairystone Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from phyllite and schist
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 45 percent

Associated Soils

- Drapermill soils, which are in a fine-loamy textural family and are moderately deep to unweathered bedrock; in steeper landform positions
- Goblintown soils, which have fewer rock fragments, are moderately deep to partially weathered bedrock, and have browner hues; in similar landform positions
- Littlejoe soils, which have fewer rock fragments and are deep to bedrock; in similar landform positions
- Penhook soils, which have fewer rock fragments and are very deep to bedrock; in similar landform positions
- Strawfield soils, which have fewer rock fragments; in similar landform positions

Taxonomic Classification

Clayey-skeletal, parasesquic, mesic Typic Hapludults

Typical Pedon

Fairystone channery loam; located 0.9 mile north of the intersection of State Route 822 and Highway 57 on State Route 822, about 100 feet east of the road, in woodland,

in Patrick County, Virginia; Philpott Reservoir, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 46 minutes 44.00 seconds N. and long. 80 degrees 5 minutes 43.00 seconds W.

A—0 to 5 inches; brown (7.5YR 4/4) broken face channery loam; weak medium granular structure; friable, slightly sticky, slightly plastic; many fine through coarse roots; 5 percent fine gravel and 15 percent channers; strongly acid; clear wavy boundary.

BAt—5 to 9 inches; yellowish red (5YR 4/6) channery loam; weak fine subangular blocky structure; friable, moderately sticky, slightly plastic; many fine through coarse roots; 30 percent channers; strongly acid; gradual wavy boundary.

Bt1—9 to 17 inches; red (2.5YR 4/8) very channery clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; many fine through coarse roots; 45 percent channers; strongly acid; gradual irregular boundary.

C/Bt2—17 to 24 inches; red (2.5YR 4/6) extremely channery clay loam; friable, moderately sticky, moderately plastic; few fine through coarse roots; 75 percent channers and 10 percent flagstones; strongly acid; abrupt irregular boundary.

C—24 to 31 inches; dark gray felsic schist with cracks less than 4 inches apart along nearly vertical bedding planes.

R—31 to 80 inches; dark gray hard felsic schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches

Depth to soft bedrock: 20 to 40 inches (where present)

Depth to hard bedrock: 20 to 40 inches

Mica content: None to common

Reaction: Extremely acid to strongly acid, except in limed areas

Rock fragments: 0 to 50 percent in the surface and subsurface layers, 35 to 60 percent in the subsoil, and 60 to 90 percent in the substratum

Other characteristics: The particle-size control section averages more than 30 percent silt, more than 40 percent silt plus very fine sand, or less than 15 percent sand coarser than very fine sand

A or Ap horizon:

Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—very fine sandy loam, loam, silt loam, or clay loam

BA or AB horizon (where present):

Hue—5YR to 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

Bt horizon:

Hue—10R to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam, silty clay loam, clay, or silty clay

Cr/Bt horizon (where present):

Color—similar to the Bt horizon
Texture—similar to the Bt horizon

BC or BCt horizon (where present):
Hue—10R to 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

C or Ct horizon:
Hue—2.5YR to 10YR or multicolored
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—loam or silt loam

French Series

Physiographic province: Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 4 percent

Associated Soils

- Colvard soils, which are in a coarse-loamy textural family and are well drained; in similar landform positions
- Dellwood soils, which are in a sandy-skeletal textural family; in similar landform positions
- Nikwasi soils, which are in a coarse-loamy over sandy or sandy-skeletal textural family, are very poorly drained, and have thick dark surface layers; in similar landform positions
- Suches soils, which are in a fine-loamy textural family; in similar landform positions

Taxonomic Classification

Fine-loamy over sandy or sandy-skeletal, mixed, active, mesic Fluvaquentic Dystrudepts

Typical Pedon

French loam; located 2,000 feet south and 24 degrees east of the intersection of State Routes 680 and 691, about 2,190 feet north and 53 degrees east of the intersection of State Routes 680 and 689, in pasture, in Patrick County, Virginia; Patrick Springs, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 39 minutes 9.00 seconds N. and long. 80 degrees 11 minutes 19.00 seconds W.

Ap—0 to 10 inches; dark yellowish brown (10YR 3/4) loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine roots; strongly acid; clear smooth boundary.
Bw1—10 to 19 inches; yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common fine roots; strongly acid; clear smooth boundary.
Bw2—19 to 24 inches; yellowish brown (10YR 5/4) loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common fine roots; many medium distinct irregular light gray (10YR 7/1) iron depletions; strongly acid; gradual smooth boundary.

C—24 to 28 inches; yellowish brown (10YR 5/4) sandy loam; massive; very friable, nonsticky, nonplastic; few fine roots; many medium distinct irregular light gray (10YR 7/1) iron depletions; very strongly acid; diffuse smooth boundary.
Cg1—28 to 36 inches; gray (10YR 6/1) loamy sand; single grain; loose, nonsticky, nonplastic; few very fine roots; common medium prominent irregular reddish yellow (5YR 6/8) masses of oxidized iron; very strongly acid; abrupt smooth boundary.
Cg2—36 to 60 inches; light gray (10YR 7/1) extremely gravelly loamy sand; single grain; loose, nonsticky, nonplastic; 65 percent rounded quartz gravel; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 25 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to slightly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer, subsurface layer, and subsoil and 0 to 75 percent in the substratum (more than 35 percent somewhere above a depth of 40 inches)
Redoximorphic features: Shades of red, brown, yellow, or gray in the subsoil and substratum

A or Ap horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—1 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon (where present):
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, loam, or sandy clay loam

Bw horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, sandy clay loam, or clay loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loamy sand, sandy loam, or loam

Cg horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Texture (fine-earth)—loamy sand, sandy loam, or loam

Goblintown Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from graphitic schist and graphitic phyllite
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 45 percent

Associated Soils

- Bugley soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, and are shallow to a lithic contact; in similar landform positions
- Penhook soils, which are very deep to paralithic and lithic contacts; in similar landform positions
- Strawfield soils, which are moderately deep to a lithic contact; in similar landform positions
- Littlejoe soils, which are deep to paralithic and lithic contacts; in similar landform positions

Taxonomic Classification

Fine, mixed, subactive, mesic Typic Hapludults

Typical Pedon

Goblintown loam; located near Fairy Stone Lake, in Mines Branch Recreation Area, on a ridge south of the Smith River and west of Secondary Route 623, in woodland, in Patrick County, Virginia; Philpott Reservoir, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 48 minutes 43.00 seconds N. and long. 80 degrees 5 minutes 16.00 seconds W.

A—0 to 6 inches; black (2.5Y 2.5/1) loam, dark grayish brown (2.5Y 4/2) dry; weak fine and medium granular structure; very friable, nonsticky, nonplastic; many fine through coarse roots; common fine tubular pores; 10 percent subangular gravel; very strongly acid; gradual wavy boundary.

Bt—6 to 14 inches; very dark gray (2.5Y 3/1) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; many fine and medium and common coarse roots; common fine tubular pores; few faint discontinuous clay films on all faces of peds; few fine mica flakes; 5 percent subangular gravel; very strongly acid; gradual wavy boundary.

BCt—14 to 20 inches; very dark gray (2.5Y 3/1) channery clay loam; many medium faint black (2.5Y 2.5/1) mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and medium and few coarse roots; few fine tubular pores; few faint discontinuous clay films on rock fragments and vertical faces of peds; few fine mica flakes; 15 percent subangular channers and 15 percent subangular parachanners; very strongly acid; gradual wavy boundary.

Ct—20 to 37 inches; very dark gray (2.5Y 3/1) very channery loam; common medium faint very dark gray (2.5Y 3/1) mottles; massive; friable, moderately sticky, moderately plastic; few fine through coarse roots; common clay films on rock fragments; few fine mica flakes; 35 percent subangular channers and 50 percent subangular parachanners; very strongly acid; clear irregular boundary.

Cr—37 to 80 inches; weathered graphitic schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 30 inches

Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 40 inches
Mica content: None or few
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface and subsurface layers, 0 to 35 percent in the upper subsoil, and 0 to 60 percent in the lower subsoil and in the substratum

A or Ap horizon:
Hue—7.5YR to 5Y
Value—2 or 3
Chroma—1 to 4
Texture (fine-earth)—very fine sandy loam, loam, or silt loam

BA horizon (where present):
Hue—7.5YR to 5Y
Value—3 or 4
Chroma—1 to 4
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

Bt horizon:
Hue—7.5YR to 5Y
Value—3 or 4
Chroma—1 to 4
Texture (fine-earth)—clay loam, silty clay loam, clay, or silty clay

BC, B/C, C/B, or BCt horizon:
Hue—7.5YR to 5Y
Value—2 to 4
Chroma—1 to 6
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

C or Ct horizon:
Hue—7.5YR to 5Y
Value—2 to 4
Chroma—1 to 6
Texture (fine-earth)—very fine sandy loam, loam, silt loam, clay loam, or silty clay loam

Hatboro Series

Physiographic province: Piedmont
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Comus soils, which are in a coarse-loamy textural family and are well drained; in similar landform positions
- Elsinboro soils, which are well drained; in stream terrace landform positions

Taxonomic Classification

Fine-loamy, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts

Typical Pedon

Hatboro loam; located 2,900 feet south and 20 degrees west of the intersection of State Routes 8 and 657 and 5,000 feet north and 84 degrees west of the intersection of State Routes 8 and 753, in pasture, in Patrick County, Virginia; Stuart SE, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 33 minutes 36.00 seconds N. and long. 80 degrees 16 minutes 19.00 seconds W.

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) loam; weak fine granular structure; friable, slightly sticky, slightly plastic; common fine distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron; strongly acid; abrupt smooth boundary.

Bg1—8 to 23 inches; light brownish gray (10YR 6/2) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common medium distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron; common fine mica flakes; strongly acid; clear smooth boundary.

Bg2—23 to 41 inches; light brownish gray (10YR 6/2) sandy clay loam; weak fine and medium subangular blocky structure; firm, slightly sticky, slightly plastic; common medium distinct irregular gray (N 6/0) iron depletions and common medium distinct irregular strong brown (7.5YR 5/6) and yellowish brown (10YR 5/4) masses of oxidized iron; common fine mica flakes; moderately acid; clear smooth boundary.

Cg—41 to 60 inches; gray (N 6/0) very gravelly sandy clay loam; massive; friable, slightly sticky, slightly plastic; few fine mica flakes; moderately acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 25 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to neutral, except in limed areas
Rock fragments: 0 to 10 percent in the surface layer, subsurface layer, and subsoil and 0 to 80 percent in the substratum
Redoximorphic features: Shades of red, brown, yellow, or gray throughout the profile

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 or 4
Chroma—1 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, silt loam, or loam

Bg horizon:
Hue—10YR to 5Y or neutral
Value—4 to 7
Chroma—0 to 2
Texture (fine-earth)—fine sandy loam, loam, silt loam, sandy clay loam, silty clay loam, or clay loam

Cg horizon:
Hue—10YR or 2.5Y or neutral
Value—4 to 7
Chroma—0 to 2
Texture (fine-earth)—sand to clay loam in the upper part of the horizon and stratified sand, silt, and clay in the lower part

Hickoryknob Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 45 to 75 percent

Associated Soils

- Meadowfield soils, which are in a loamy-skeletal textural family; in similar landform positions
- Rhodhiss soils, which are very deep to paralithic and lithic contacts; in similar landform positions
- Stott Knob soils, which are very deep to a lithic contact and have parasesquic mineralogy; in similar landform positions
- Woolwine soils, which are in a fine textural family and have kaolinitic mineralogy; in similar landform positions
- Clifford soils, which are in a fine textural family, are very deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions
- Fairview soils, which are in a fine textural family, are very deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, micaceous, mesic Typic Hapludults

Typical Pedon

Hickoryknob loam; located 7,200 feet north and 58 degrees east of the intersection of State Routes 619 and 854, in woodland, in Franklin County, Virginia; Gladehill, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 54 minutes 9.20 seconds N. and long. 79 degrees 45 minutes 51.70 seconds W.

Oe—0 to 1 inch; moderately decomposed plant material.
A—1 to 4 inches; brown (10YR 4/3) loam; weak very fine granular structure; very friable, nonsticky, nonplastic; common very fine and fine roots; 5 percent subangular quartz gravel; extremely acid; clear smooth boundary.
Bt1—4 to 13 inches; brown (7.5YR 5/4) channery loam; weak very fine and fine subangular blocky structure; friable, nonsticky, nonplastic; few very fine through very coarse roots; many faint clay films on all faces of peds; few fine mica flakes; 15 percent subangular mica schist channers; extremely acid; clear smooth boundary.
Bt2—13 to 23 inches; yellowish red (5YR 4/6) channery clay loam; moderate very fine and fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through medium roots; many distinct clay films on all faces of peds; few fine mica flakes; 25 percent subangular mica schist channers; very strongly acid; clear wavy boundary.
Cr—23 to 36 inches; weathered mica schist bedrock.
R—36 to 80 inches; unweathered mica schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches

Depth to hard bedrock: 20 to 40 inches
Mica content: None to common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 35 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—fine sandy loam or loam

BA horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam or loam

Bt horizon:
Hue—2.5YR to 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—loam or clay loam

BC horizon (where present):
Hue—2.5YR to 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—loam or clay loam

C horizon (where present):
Hue—2.5YR to 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—fine sandy loam or loam

Kibler Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist, mica gneiss, and amphibolite
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Deep
Slope range: 2 to 75 percent

Associated Soils

- Trimont soils, which are very deep to paralithic and lithic contacts, have mixed mineralogy, and have thick dark surface layers; in similar landform positions
- Widgett soils, which are in a loamy-skeletal textural family, are moderately deep to a lithic contact, have mixed mineralogy, and have thick dark surface layers; in similar landform positions
- Bellspur soils, which are moderately deep to a paralithic contact, have paramicaceous mineralogy, and have thick dark surface layers; in similar landform positions

Taxonomic Classification

Fine-loamy, micaceous, mesic Humic Dystrudepts

Typical Pedon

Kibler loam; located 0.45 mile north of U.S. Highway 58 on State Route 795, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 32.00 seconds N. and long. 80 degrees 23 minutes 55.00 seconds W.

A—0 to 8 inches; dark brown (10YR 3/3) loam, brown (10YR 5/3) dry; weak medium granular structure; friable, slightly sticky, slightly plastic; many fine through coarse roots; few fine tubular pores; few fine mica flakes; 5 percent subangular quartz gravel; very strongly acid; clear wavy boundary.

Bw1—8 to 24 inches; strong brown (7.5YR 4/6) sandy clay loam; few medium distinct irregular strong brown (7.5YR 5/8) mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; many fine through coarse roots; common fine tubular pores; few clay films on all faces of peds; common fine mica flakes; 10 percent subangular quartz gravel; very strongly acid; gradual wavy boundary.

Bw2—24 to 32 inches; yellowish red (5YR 5/8) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, moderately plastic; few fine through coarse roots; common fine tubular pores; few clay films on all faces of peds; common fine mica flakes; 10 percent subangular quartz gravel; strongly acid; gradual wavy boundary.

C—32 to 54 inches; yellowish red (5YR 5/8) paragravelly sandy loam; common medium faint irregular strong brown (7.5YR 4/6) mottles; massive; friable, nonsticky, nonplastic; common fine mica flakes; 10 percent subangular quartz gravel and 25 percent subangular gneiss gravel; strongly acid; clear irregular boundary.

Cr—54 to 80 inches; weathered amphibolite bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 40 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 25 percent in the surface layer, 0 to 35 percent in the subsurface layer and subsoil, and 0 to 75 percent in the substratum

A horizon:
Hue—5YR to 2.5Y
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AB or BA horizon (where present):
Hue—5YR to 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—5YR to 10YR
Value—4 to 6

Chroma—3 to 8
Texture (fine-earth)—fine sandy loam, loam, sandy clay loam, or clay loam

BC horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or sandy clay loam

C horizon:
Hue—5YR to 10YR or multicolored
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Littlejoe Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from phyllite and schist
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Deep
Slope range: 8 to 75 percent

Associated Soils

- Bugley soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, and are shallow to a lithic contact; in similar landform positions
- Goblintown soils, which are moderately deep to a paralithic contact and have thick dark surface layers; in similar landform positions
- Penhook soils, which are very deep to paralithic and lithic contacts; in similar landform positions
- Strawfield soils, which are moderately deep to paralithic and lithic contacts; in similar landform positions

Taxonomic Classification

Fine, mixed, subactive, mesic Typic Hapludults

Typical Pedon

Littlejoe loam; located 2,300 feet south and 76 degrees east of the intersection of State Routes 40 and 890, in a road cut adjacent to planted pine, in Franklin County, Virginia; Sandy Level, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 58 minutes 39.00 seconds N. and long. 79 degrees 36 minutes 52.10 seconds W.

Ap—0 to 8 inches; dark yellowish brown (10YR 4/4) loam; moderate fine granular structure; friable, nonsticky, nonplastic; common very fine through medium roots; few very fine mica flakes; 2 percent subangular phyllite channers; very strongly acid; clear smooth boundary.

Bt1—8 to 20 inches; strong brown (7.5YR 5/8) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through medium roots; common faint clay films on all faces of peds; few very fine mica flakes; 2 percent subangular phyllite channers; very strongly acid; clear smooth boundary.

Bt2—20 to 28 inches; red (2.5YR 4/6) clay; moderate fine subangular blocky structure; firm, slightly sticky, slightly plastic; common distinct clay films on all faces of peds;

few very fine mica flakes; 2 percent subangular phyllite channers; very strongly acid; gradual smooth boundary.

Bt3—28 to 45 inches; red (10R 4/6) clay; moderate fine subangular blocky structure; firm, slightly sticky, slightly plastic; common distinct clay films on all faces of peds; few very fine mica flakes; 11 percent subangular phyllite channers; very strongly acid; abrupt smooth boundary.

Cr—45 to 59 inches; weathered phyllite bedrock.

R—59 to 80 inches; unweathered phyllite bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 40 inches
Mica content: None to common
Reaction: Very strongly acid or strongly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 20 percent in the subsurface layer, subsoil, and substratum
Other characteristics: The particle-size control section averages more than 30 percent silt, more than 40 percent silt plus very fine sand, and less than 15 percent sand coarser than very fine sand

A or Ap horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—fine sandy loam or loam

Bt horizon:
Hue—10R to 5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam, clay, or silty clay

BC horizon (where present):
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—clay loam

C horizon (where present):
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam

Comments

The Littlejoe series does not allow 7.5YR hues in the Bt horizon. This pedon, which is representative of the survey area, has browner hues in individual subsoil horizons.

Meadowfield Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from schist
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high

Depth class: Moderately deep
Slope range: 8 to 90 percent

Associated Soils

- Hickoryknob soils, which are in a fine-loamy textural family; in similar landform positions
- Rhodhiss soils, which are in a fine-loamy textural family and are very deep to paralithic and lithic contacts; in similar landform positions
- Stott Knob soils, which are in a fine-loamy textural family, are very deep to a lithic contact, and have parasesquic mineralogy; in similar landform positions
- Woolwine soils, which are in a fine textural family and have kaolinitic mineralogy; in similar landform positions
- Clifford soils, which are in a fine textural family, are very deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions
- Fairview soils, which are in a fine textural family, are very deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions

Taxonomic Classification

Loamy-skeletal, mixed, subactive, mesic Typic Hapludults

Typical Pedon

Meadowfield very gravelly loam; located 6.9 miles northeast of Mount Airy, 0.4 mile east of the intersection of Virginia State Route 668 and Secondary Road 1742 on Virginia Road 668, about 0.4 mile southeast on a farm road and a powerline right-of-way into North Carolina, 0.1 mile east-northeast on a woods road, 55 feet south of the road, in woodland, in Surry County, North Carolina; Mount Airy North, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 33 minutes 1.00 seconds N. and long. 80 degrees 30 minutes 53.00 seconds W.

A—0 to 4 inches; dark yellowish brown (10YR 3/4) very gravelly loam, dark yellowish brown (10YR 4/4) dry; weak fine granular structure; very friable, nonsticky, nonplastic; many fine through coarse roots; many fine tubular pores; few fine mica flakes; 1 percent subangular stones, 15 percent subangular cobbles, and 35 percent subangular gravel; extremely acid; clear wavy boundary.

Bt1—4 to 8 inches; strong brown (7.5YR 4/6) very gravelly loam; weak fine subangular blocky structure; very friable, slightly sticky, slightly plastic; many fine through coarse roots; common fine tubular pores; few fine mica flakes; 15 percent subangular cobbles and 30 percent subangular gravel; very strongly acid; gradual wavy boundary.

Bt2—8 to 22 inches; yellowish red (5YR 4/6) very gravelly clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine through coarse roots; common fine tubular pores; common faint clay films on vertical faces of peds; few fine mica flakes; 10 percent subangular cobbles and 40 percent subangular gravel; very strongly acid; gradual irregular boundary.

C/Bt3—22 to 28 inches; 20 percent red (2.5YR 4/8), 25 percent brown (10YR 5/3), 25 percent brownish yellow (10YR 6/8), and 30 percent yellowish red (5YR 4/6) extremely gravelly clay loam; massive; friable, slightly sticky, slightly plastic; few fine through coarse roots; few fine mica flakes; 20 percent subangular cobbles and 45 percent subangular gravel; very strongly acid; abrupt irregular boundary.

R—28 to 80 inches; unweathered schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches

Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: None to many
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 15 to 70 percent throughout the profile

A or Ap horizon:
Hue—5YR to 10YR
Value—3 to 5
Chroma—2 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

E horizon (where present):
Hue—5YR to 10YR
Value—3 to 5
Chroma—2 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA or BE horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon:
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

BC or CB horizon (where present):
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

C horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Minnieville Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 45 percent

Associated Soils

- Bluemount soils, which are in a fine-loamy textural family, are moderately deep to paralithic and lithic contacts, and have mixed mineralogy; in similar landform positions
- Redbrush soils, which are moderately deep to paralithic and lithic contacts and have mixed mineralogy; in similar landform positions
- Jackland soils, which are somewhat poorly drained and have smectitic mineralogy; in similar landform positions

Taxonomic Classification

Fine, kaolinitic, mesic Typic Hapludults

Typical Pedon

Minnieville loam; located 10,100 feet north and 21 degrees west of the intersection of State Routes 618 and 632, in woodland, in Franklin County, Virginia; Snow Creek, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 50 minutes 0.60 seconds N. and long. 79 degrees 51 minutes 23.10 seconds W.

A—0 to 4 inches; reddish brown (5YR 4/4) loam; moderate fine granular structure; very friable, slightly hard, nonsticky, nonplastic; many very fine through medium roots; 5 percent subrounded quartz gravel; strongly acid; clear smooth boundary.

BA—4 to 8 inches; dark red (2.5YR 3/6) clay loam; moderate very fine and fine subangular blocky structure; firm, nonsticky, slightly plastic; many very fine and fine and few very coarse roots; 2 percent subrounded quartz gravel; strongly acid; abrupt smooth boundary.

Bt1—8 to 17 inches; red (10R 4/6) clay; strong fine and medium angular blocky structure; very firm, very sticky, moderately plastic; common very fine through medium roots; many distinct clay films on all faces of peds; strongly acid; clear smooth boundary.

Bt2—17 to 32 inches; red (10R 4/6) clay; strong fine and medium angular blocky structure; very firm, moderately sticky, moderately plastic; few very fine roots; many distinct clay films on all faces of peds; strongly acid; gradual smooth boundary.

Bt3—32 to 53 inches; red (10R 4/6) clay; moderate fine and medium subangular blocky structure; very firm, moderately sticky, moderately plastic; many distinct clay films on all faces of peds; strongly acid; gradual smooth boundary.

BCt—53 to 64 inches; red (2.5YR 5/6) clay loam; weak fine and medium subangular blocky structure; firm, nonsticky, slightly plastic; common distinct clay films on all faces of peds; few very fine mica flakes; 10 percent subrounded hornblende gneiss gravel; strongly acid; gradual smooth boundary.

BC—64 to 81 inches; red (2.5YR 5/6) clay loam; weak fine subangular blocky structure; firm, nonsticky, slightly plastic; few very fine mica flakes; 10 percent subrounded hornblende gneiss gravel; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 15 to 60 inches or more

Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches

Mica content: None to common

Reaction: Strongly acid to moderately acid, except in limed areas

Rock fragments: 0 to 15 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum

A or Ap horizon:
Hue—5YR or 7.5YR
Value—3 or 4
Chroma—3 to 6
Texture (fine-earth)—loam or clay loam

AB or BA horizon (where present):
Hue—2.5YR to 7.5YR
Value—3 or 4
Chroma—4 or 6
Texture (fine-earth)—loam or clay loam

Bt horizon:
Hue—10R to 5YR; 5YR colors are restricted to individual subhorizons
Value—3 or 4
Chroma—6 or 8
Texture (fine-earth)—clay loam or clay

BC or BCt horizon:
Hue—2.5YR or 5YR
Value—3 to 5
Chroma—6 or 8
Texture (fine-earth)—clay loam

C horizon (where present):
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam or clay loam

Nikwasi Series

Physiographic province: Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 4 percent

Associated Soils

- Colvard soils, which are in a coarse-loamy textural family and are well drained; in similar landform positions
- Dellwood soils, which are in a sandy-skeletal textural family and are moderately well drained; in similar landform positions
- French soils, which are in a fine-loamy over sandy or sandy-skeletal textural family and are moderately well drained; in similar landform positions
- Suches soils, which are in a fine-loamy textural family and are moderately well drained; in similar landform positions

Taxonomic Classification

Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, mesic Cumulic Humaquepts

Typical Pedon

Nikwasi loam; located 1.2 miles northwest of Vesta, 1,600 feet southwest of the

intersection of State Routes 764 and 610, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 3.00 seconds N. and long. 80 degrees 21 minutes 53.00 seconds W.

A1—0 to 4 inches; very dark grayish brown (10YR 3/2) loam; weak medium granular structure; very friable, nonsticky, nonplastic; very strongly acid; clear wavy boundary.
A2—4 to 10 inches; very dark gray (10YR 3/1) loam; weak medium granular structure; very friable, nonsticky, nonplastic; common fine prominent irregular yellowish red (5YR 4/6) masses of oxidized iron; very strongly acid; clear smooth boundary.
A3—10 to 24 inches; black (10YR 2/1) mucky loam; weak medium granular structure; very friable, nonsticky, nonplastic; 10 percent rounded gravel; very strongly acid; clear smooth boundary.
AC—24 to 28 inches; black (10YR 2/1) very gravelly sandy loam; massive; very friable, nonsticky, nonplastic; many coarse distinct irregular very dark grayish brown (10YR 3/2) masses of oxidized iron; common fine mica flakes; 35 percent rounded gravel; strongly acid; clear smooth boundary.
Cg1—28 to 33 inches; dark grayish brown (10YR 4/2) very cobbly loamy sand; single grain; loose, nonsticky, nonplastic; common fine mica flakes; 15 percent rounded gravel and 25 percent rounded cobbles; moderately acid; gradual wavy boundary.
Cg2—33 to 60 inches; grayish brown (10YR 5/2) extremely cobbly loamy sand; single grain; loose, nonsticky, nonplastic; common fine mica flakes; 5 percent rounded stones, 20 percent rounded gravel, and 35 percent rounded cobbles; moderately acid.

Range in Characteristics

Diagnostic subsurface horizon: There are no diagnostic subsurface features
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to many
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 35 percent in the surface layer, subsurface layer, and subsoil and 35 to 70 percent in the substratum
Redoximorphic features: Shades of red, brown, yellow, or gray in the surface layer, subsurface layer, subsoil, and substratum

A or Ap horizon:
Hue—10YR or 2.5Y
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AC horizon:
Hue—10YR or 2.5Y
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sand, loamy sand, or sandy loam

Cg horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Texture (fine-earth)—sand or loamy sand

Peaks Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from granitic gneiss, biotite augen gneiss, flaser gneiss, granulite, and other resistant rocks
Drainage class: Somewhat excessively drained
Slowest saturated hydraulic conductivity: High
Depth class: Moderately deep
Slope range: 15 to 90 percent

Associated Soils

- Cliffield soils, which are well drained; in similar landform positions
- Cowee soils, which are in a fine-loamy textural family, are well drained, are deep to a lithic contact, and have parasesquic mineralogy; in similar landform positions
- Edneyville soils, which are in a coarse-loamy textural family, are well drained, and are very deep to paralithic and lithic contacts; in similar landform positions
- Evard soils, which are in a fine-loamy textural family, are well drained, are very deep to paralithic and lithic contacts, and have parasesquic mineralogy; in similar landform positions

Taxonomic Classification

Loamy-skeletal, mixed, active, mesic Typic Dystrudepts

Typical Pedon

Peaks gravelly loam; located 1,950 feet north and 63 degrees east of the intersection of State Routes 602 and 643, in woodland, in Franklin County, Virginia; Callaway, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37 degrees 6 minutes 57.30 seconds N. and long. 80 degrees 5 minutes 24.80 seconds W.

Oa—0 to 1 inch; highly decomposed plant material.
A—1 to 5 inches; brown (10YR 4/3) gravelly loam; weak fine granular structure; friable, nonsticky, nonplastic; many very fine through medium and few coarse and very coarse roots; 16 percent angular granite gneiss gravel; very strongly acid; clear smooth boundary.
BA—5 to 12 inches; dark yellowish brown (10YR 4/4) gravelly loam; moderate medium granular structure parting to weak fine subangular blocky; friable, nonsticky, nonplastic; many very fine through medium and few coarse and very coarse roots; 20 percent angular granite gneiss gravel; very strongly acid; clear smooth boundary.
Bw—12 to 25 inches; dark yellowish brown (10YR 4/6) very cobbly loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; common very fine through coarse roots; 16 percent angular granite gneiss cobbles and 20 percent angular granite gneiss gravel; very strongly acid; abrupt wavy boundary.
C—25 to 34 inches; dark yellowish brown (10YR 4/4) very cobbly loam; massive; friable, nonsticky, nonplastic; few very fine and fine roots; 28 percent angular granite gneiss cobbles and 30 percent angular granite gneiss gravel; very strongly acid; clear irregular boundary.
R—34 to 80 inches; unweathered granite gneiss bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 35 inches
Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: None or few

Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 10 to 35 percent in the surface layer, 10 to 55 percent in the subsurface layer, 30 to 60 percent in the subsoil, and 35 to 60 percent in the substratum

A horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—2 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

BA horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 or 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Penhook Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from phyllite and schist
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 8 to 45 percent

Associated Soils

- Bugley soils, which are in a loamy-skeletal textural family, are somewhat excessively drained, and are shallow to a lithic contact; in similar landform positions
- Goblintown soils, which are moderately deep to a paralithic contact and have thick dark surface layers; in similar landform positions
- Strawfield soils, which are moderately deep to paralithic and lithic contacts; in similar landform positions
- Littlejoe soils, which are deep to paralithic and lithic contacts; in similar landform positions

Taxonomic Classification

Fine, mixed, subactive, mesic Typic Hapludults

Typical Pedon

Penhook loam; located 6,350 feet south and 12 degrees west of the intersection of State Routes 40 and 946, in woodland, in Franklin County, Virginia; Penhook, Virginia

USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 58 minutes 0.90 seconds N. and long. 79 degrees 38 minutes 27.00 seconds W.

Oe—0 to 1 inch; moderately decomposed plant material.

A—1 to 6 inches; brown (7.5YR 4/4) loam; weak fine granular structure; friable, slightly sticky, slightly plastic; few very fine and fine and common medium and coarse roots; 7 percent subangular phyllite channers and 7 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

Bt1—6 to 9 inches; yellowish red (5YR 5/6) clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through coarse roots; common faint clay films on all faces of peds; 2 percent subrounded quartz gravel and 3 percent subangular phyllite channers; very strongly acid; clear wavy boundary.

Bt2—9 to 26 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; friable, moderately sticky, slightly plastic; few very fine through coarse roots; common distinct clay films on all faces of peds; 1 percent subrounded quartz gravel and 1 percent subangular phyllite channers; very strongly acid; gradual wavy boundary.

Bt3—26 to 43 inches; red (2.5YR 4/8) clay; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; common faint clay films on all faces of peds; 6 percent subrounded quartz gravel and 6 percent subangular phyllite channers; very strongly acid; gradual wavy boundary.

BCt—43 to 52 inches; red (2.5YR 5/6) parachannery clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common faint clay films on all faces of peds; 30 percent subangular phyllite parachanners; very strongly acid; clear wavy boundary.

C—52 to 63 inches; yellowish red (5YR 5/6), dark red (2.5YR 3/6), red (2.5YR 4/8), and reddish yellow (7.5YR 6/6) loam; massive; friable, slightly sticky, slightly plastic; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 11 to 55 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum
Other characteristics: The particle-size control section averages more than 30 percent silt, more than 40 percent silt plus very fine sand, and less than 15 percent sand coarser than very fine sand

A or Ap horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—loam

Bt horizon:
Hue—2.5YR or 5YR; some pedons have hues of 7.5YR or 10YR in the lower Bt horizon
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam, silty clay loam, clay, or silty clay

BC or BCt horizon:
Hue—2.5YR to 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

C horizon:
Hue—2.5YR to 10YR or multicolored
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—loam or silt loam

Redbrush Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from amphibolite, actinolite schist and gneiss, and hornblende schist and gneiss
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Low
Depth class: Moderately deep
Slope range: 2 to 25 percent

Associated Soils

- Bluemount soils, which are in a fine-loamy textural family; in similar landform positions
- Jackland soils, which are somewhat poorly drained, are very deep to paralithic and lithic contacts, and have smectitic mineralogy; in similar landform positions
- Minnieville soils, which are very deep to paralithic and lithic contacts and have kaolinitic mineralogy; in similar landform positions

Taxonomic Classification

Fine, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Redbrush loam; located 5,800 feet south and 19 degrees east of the intersection of State Routes 40 and 673, in planted pine, in Franklin County, Virginia; Penhook, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 58 minutes 14.80 seconds N. and long. 79 degrees 44 minutes 15.40 seconds W.

A—0 to 5 inches; very dark grayish brown (2.5Y 3/2) loam; weak fine granular structure; friable, nonsticky, nonplastic; common very fine through coarse roots; common coarse irregular moderately cemented dark brown (7.5YR 3/2) iron-manganese concretions; 5 percent subrounded amphibolite gravel and 5 percent subrounded amphibolite cobbles; strongly acid; clear smooth boundary.

BA—5 to 12 inches; olive brown (2.5Y 4/3) loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few very fine through coarse roots; common coarse irregular moderately cemented dark brown (7.5YR 3/2) iron-manganese concretions; 4 percent subrounded amphibolite gravel and 10 percent subrounded amphibolite cobbles; moderately acid; clear smooth boundary.

Bt1—12 to 20 inches; olive brown (2.5Y 4/4) clay; moderate medium and coarse angular blocky structure; extremely firm, very sticky, very plastic; few very fine roots; few distinct slickensides (pedogenic) and many distinct clay films on all faces of peds; 5 percent subrounded amphibolite cobbles and 5 percent subrounded amphibolite gravel; slightly acid; clear smooth boundary.

Bt2—20 to 23 inches; olive brown (2.5Y 4/3) clay; moderate medium and coarse angular blocky structure; extremely firm, very sticky, very plastic; few very fine roots; few distinct slickensides (pedogenic) and many distinct clay films on all faces of peds; 3 percent subrounded amphibolite gravel; slightly acid; clear smooth boundary.

C/Bt3—23 to 26 inches; olive brown (2.5Y 4/3), light olive brown (2.5Y 5/6), and very dark grayish brown (2.5Y 3/2) silt loam (C part) and clay (Bt part); massive; friable, slightly sticky, slightly plastic; common distinct clay films on all faces of peds; slightly acid; clear wavy boundary.

C—26 to 30 inches; olive brown (2.5Y 4/3), light olive brown (2.5Y 5/6), and very dark grayish brown (2.5Y 3/2) silt loam; massive; friable, nonsticky, nonplastic; slightly acid; clear wavy boundary.

Cr—30 to 38 inches; weathered amphibolite bedrock.

R—38 to 80 inches; unweathered amphibolite bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches

Depth to soft bedrock: 20 to 40 inches

Depth to hard bedrock: 20 to 40 inches

Mica content: None or few

Reaction: Strongly acid to slightly acid in the upper horizons and moderately acid to slightly alkaline in the lower horizons, except in limed areas

Rock fragments: 0 to 15 percent in the surface layer and 0 to 20 percent in the subsurface layer, subsoil, and substratum

A or Ap horizon:

Hue—10YR or 2.5Y
Value—3 or 4
Chroma—2 or 3
Texture (fine-earth)—loam or silt loam

AB or BA horizon:

Hue—10YR or 2.5Y
Value—4 to 6
Chroma—3 or 4
Texture (fine-earth)—loam or silt loam

Bt horizon:

Hue—7.5YR to 2.5Y
Value—4 or 5
Chroma—3 to 8
Texture (fine-earth)—clay loam or clay

BC or BCt horizon (where present):

Hue—7.5YR to 2.5Y
Value—4 or 5
Chroma—3 to 8
Texture (fine-earth)—clay loam

Bt/C or C/Bt horizon:

Color—Bt and C parts have colors similar to their respective horizon
Texture—Bt and C parts have textures similar to their respective horizon

C horizon:

Hue—7.5YR to 5Y or multicolored
Value—4 or 5

Chroma—4 or 6
Texture (fine-earth)—fine sandy loam, loam, silt loam, or clay loam

Rhodhiss Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 25 to 75 percent

Associated Soils

- Hickoryknob soils, which are moderately deep to paralithic and lithic contacts, in similar landform positions
- Meadowfield soils, which are in a loamy-skeletal textural family and are moderately deep to a lithic contact; in similar landform positions
- Stott Knob soils, which are moderately deep to a paralithic contact and have parasesquic mineralogy; in similar landform positions
- Woolwine soils, which are in a fine textural family, are moderately deep to paralithic and lithic contacts, and have kaolinitic mineralogy; in similar landform positions
- Clifford soils, which are in a fine textural family and have kaolinitic mineralogy; in similar landform positions
- Fairview soils, which are in a fine textural family and have kaolinitic mineralogy; in similar landform positions

Taxonomic Classification

Fine-loamy, mixed, semiactive, mesic Typic Hapludults

Typical Pedon

Rhodhiss loam; located 250 feet north and 54 degrees east of the intersection of State Route 619 and the Franklin-Henry County line, in woodland, in Franklin County, Virginia; Mountain Valley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 48 minutes 24.90 seconds N. and long. 79 degrees 44 minutes 27.80 seconds W.

A—0 to 3 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable, nonsticky, nonplastic; many very fine through medium roots; few fine mica flakes; 6 percent subangular mica schist channers and 6 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

BA—3 to 5 inches; yellowish brown (10YR 5/6) loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; many very fine through medium roots; few fine mica flakes; 3 percent subrounded quartz gravel and 6 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

Bt1—5 to 20 inches; strong brown (7.5YR 5/6) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through very coarse roots; common coarse and very coarse tubular pores; common faint clay films on all faces of peds; few fine mica flakes; 1 percent subrounded quartz gravel and 2 percent subangular mica schist channers; very strongly acid; gradual smooth boundary.

Bt2—20 to 30 inches; red (2.5YR 5/8) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through very coarse

roots; few faint clay films on all faces of peds; few fine mica flakes; 1 percent subangular mica schist channers and 2 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

BCt—30 to 38 inches; yellowish red (5YR 5/8) loam; weak fine subangular blocky structure; friable, slightly sticky, nonplastic; few faint clay films on all faces of peds; few fine mica flakes; 1 percent subangular mica schist channers and 2 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

Ct—38 to 60 inches; brownish yellow (10YR 6/8) parachannery sandy loam; massive; very friable, nonsticky, nonplastic; common prominent clay bridges between sand grains; common fine and medium mica flakes; 2 percent subrounded quartz gravel and 3 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

C—60 to 80 inches; yellowish red (5YR 5/8), red (2.5YR 5/8), brownish yellow (10YR 6/8), and strong brown (7.5YR 5/6) loamy sand; massive; very friable, nonsticky, nonplastic; few fine mica flakes; 2 percent subrounded quartz gravel and 3 percent subangular mica schist channers; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 20 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—fine sandy loam or loam

BA or AB horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—fine sandy loam or loam

Bt horizon:
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—loam or clay loam

BC or BCt horizon:
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—fine sandy loam, loam, or clay loam

C or Ct horizon:
Hue—2.5YR to 10YR or multicolored
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Saunook Series

Physiographic province: Blue Ridge
Landform: Terraces, fans, and drainageways on mountain slopes
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 25 percent

Associated Soils

- Cullasaja soils, which have more than 35 percent rock fragments between a depth of 10 and 40 inches; in similar landform positions
- Dellwood soils, which have more than 35 percent rock fragments and a texture of sand or loamy sand between a depth of 10 and 40 inches and are occasionally flooded; on flood plains
- Tuckasegee soils, which have less profile development; in similar landform positions
- Thunder soils, which have more than 35 percent rock fragments in the control section; in similar landform positions

Taxonomic Classification

Fine-loamy, mixed, superactive, mesic Humic Hapludults

Typical Pedon

Saunook loam; located 2.1 miles north of Vesta, 0.45 mile west of the intersection of State Routes 759 and 764, about 250 feet south of State Route 759, in an orchard, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 52.00 seconds N. and long. 80 degrees 21 minutes 20.00 seconds W.

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) loam, dark yellowish brown (10YR 4/4) dry; weak medium granular structure; friable, moderately sticky, slightly plastic; many very fine through very coarse roots; few fine mica flakes; 5 percent subrounded cobbles and 8 percent subrounded gravel; moderately acid; clear wavy boundary.

Bt1—9 to 14 inches; brown (7.5YR 4/4) clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few very fine through coarse roots; common fine mica flakes; 5 percent subrounded cobbles and 8 percent subrounded gravel; moderately acid; clear wavy boundary.

Bt2—14 to 26 inches; strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few discontinuous clay films on all faces of peds; common fine mica flakes; 5 percent subrounded cobbles and 8 percent subrounded gravel; moderately acid; gradual wavy boundary.

BC—26 to 33 inches; strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine mica flakes; 5 percent subrounded gravel and 5 percent subrounded cobbles; moderately acid; gradual wavy boundary.

C1—33 to 51 inches; strong brown (7.5YR 5/6) loam; massive; friable, moderately sticky, moderately plastic; common fine irregular light gray (10YR 7/2) iron depletions and common medium and coarse irregular yellowish brown (10YR 5/8) masses of oxidized iron; common fine mica flakes; 10 percent subrounded gravel; strongly acid; abrupt wavy boundary.

C2—51 to 60 inches; strong brown (7.5YR 5/6), reddish yellow (7.5YR 6/8), and yellowish red (5YR 5/6) loam; massive; friable, moderately sticky, moderately

plastic; common fine irregular light gray (10YR 7/2) iron depletions and common medium and coarse irregular yellowish brown (10YR 5/8) masses of oxidized iron; common fine mica flakes; 10 percent subrounded gravel; moderately acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Strongly acid or moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer, subsurface layer, and subsoil and 0 to 30 percent in the substratum

A or Ap horizon:
Hue—7.5YR or 10YR
Value—2 or 3
Chroma—2 to 4
Texture (fine-earth)—fine sandy loam, loam, or silt loam

Bt horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, silt loam, sandy clay loam, silty clay loam, or clay loam

BC horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, silt loam, sandy clay loam, silty clay loam, or clay loam

C horizon:
Hue—5YR to 10YR or multicolored
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, silt loam, sandy clay loam, silty clay loam, or clay loam

Stott Knob Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 90 percent

Associated Soils

- Clifford soils, which have 35 to 60 percent clay in the subsoil and are very deep to bedrock; in similar and less steep landform positions
- Fairview soils, which have 35 to 60 percent clay in the subsoil and are very deep to bedrock; in similar and less steep landform positions
- Hickoryknob soils, which are moderately deep to unweathered bedrock; in similar landform positions
- Rhodhiss soils, which are very deep to bedrock; in similar landform positions

- Westfield soils, which have 35 to 60 percent clay in the subsoil and are deep to partially weathered bedrock; in similar and steeper landform positions
- Woolwine soils, which have 35 to 60 percent clay in the subsoil; in similar and less steep landform positions

Taxonomic Classification

Fine-loamy, parasesquic, mesic Typic Hapludults

Typical Pedon

Stott Knob loam; located 14,250 feet north and 79 degrees west of the intersection of State Routes 632 and 717, in woodland, in Franklin County, Virginia; Snow Creek, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 51 minutes 2.70 seconds N. and long. 79 degrees 50 minutes 26.80 seconds W.

Oa—0 to 2 inches; highly decomposed plant material.

A—2 to 4 inches; brown (10YR 5/3) loam; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine through coarse roots; few very fine mica flakes; 6 percent subrounded quartz gravel and 7 percent subangular mica schist channers; very strongly acid; abrupt smooth boundary.

Bt—4 to 19 inches; yellowish red (5YR 5/6) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine through coarse roots; common faint clay films on all faces of peds; few very fine mica flakes; 5 percent subrounded quartz gravel and 6 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

Ct1—19 to 31 inches; strong brown (7.5YR 5/6) gravelly loam; massive; very friable, nonsticky, nonplastic; few very fine through medium roots; few distinct clay films on rock fragments; 10 percent subrounded quartz gravel and 10 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

Ct2—31 to 38 inches; strong brown (7.5YR 5/6) extremely parachannery loam; massive; very friable, nonsticky, nonplastic; few very fine through medium roots; common distinct clay films on rock fragments; 25 percent subangular mica schist channers and 60 percent subangular mica schist parachanners; very strongly acid; clear smooth boundary.

Cr—38 to 80 inches; weathered mica schist bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 40 inches
Mica content: Few or common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer, 0 to 20 percent in the subsurface layer and subsoil, 0 to 35 percent in the upper substratum, and 0 to 85 percent in the lower substratum

A horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—fine sandy loam or loam

BA horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5

Chroma—4 to 8
Texture (fine-earth)—fine sandy loam or loam

Bt horizon:
Hue—2.5YR to 10YR
Value—4 or 5
Chroma—4 to 8
Texture (fine-earth)—loam or clay loam

BC or BCt horizon (where present):
Hue—2.5YR to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam or clay loam

C or Ct horizon:
Hue—5YR to 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Strawfield Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from phyllite and schist
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 8 to 45 percent

Associated Soils

- Drapermill soils, which have 18 to 35 percent clay in the subsoil and are moderately deep to unweathered bedrock; in steeper landform positions
- Goblintown soils, which are moderately deep to partially weathered bedrock and have browner hues; in similar landform positions
- Littlejoe soils, which are deep to bedrock; in similar landform positions
- Penhook soils, which are very deep to bedrock; in similar landform positions

Taxonomic Classification

Fine, parasesquic, mesic Typic Hapludults

Typical Pedon

Strawfield clay loam; located 1,500 feet south and 83 degrees east of the intersection of State Routes 40 and 890, in planted pine, in Franklin County, Virginia; Sandy Level, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 58 minutes 42.40 seconds N. and long. 79 degrees 37 minutes 0.30 seconds W.

Ap—0 to 2 inches; brown (7.5YR 4/4) clay loam; weak very fine and fine subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine through medium roots; 2 percent subangular phyllite channers and 3 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

BA—2 to 9 inches; strong brown (7.5YR 4/6) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common medium and very

coarse roots; 2 percent subangular phyllite channers and 3 percent subrounded quartz gravel; very strongly acid; abrupt smooth boundary.

Bt1—9 to 16 inches; red (2.5YR 4/6) clay; moderate fine subangular blocky structure; firm, slightly sticky, moderately plastic; few very fine and fine roots; many distinct clay films on all faces of peds; very strongly acid; clear smooth boundary.

Cr/Bt2—16 to 22 inches; red (2.5YR 4/6) weathered bedrock (cracks less than 4 inches apart) and clay; moderate fine subangular blocky structure; firm, slightly sticky, moderately plastic; few very fine roots; many distinct clay films on vertical faces of peds; very strongly acid; clear smooth boundary.

R—22 to 80 inches; unweathered phyllite bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: None to common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum
Other characteristics: The particle-size control section averages more than 30 percent silt, more than 40 percent silt plus very fine sand, and less than 15 percent sand coarser than very fine sand

A or Ap horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—very fine sandy loam, loam, silt loam, or clay loam

BA or AB horizon (where present):
Hue—5YR to 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

Bt horizon:
Hue—10R to 7.5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam, silty clay loam, clay, or silty clay

Cr/Bt horizon (where present):
Color—similar to the Bt horizon
Texture—similar to the Bt horizon

BC or BCt horizon (where present):
Hue—10R to 10YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—loam, silt loam, clay loam, or silty clay loam

C or Ct horizon:
Hue—2.5YR to 10YR or multicolored
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—loam or silt loam

Suches Series

Physiographic province: Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 3 percent

Associated Soils

- Codorus soils, which are somewhat poorly drained and have fine-loamy material
- Delanco soils, which are moderately well drained; on adjacent stream terraces
- Elsinboro soils, which are well drained; on adjacent stream terraces

Taxonomic Classification

Fine-loamy, mixed, semiactive, mesic Oxyaquic Dystrudepts

Typical Pedon

Suches loam; located 9.5 miles south of Dobson, 0.7 mile east of the intersection of U.S. Highway 601 and the railroad tracks at Crutchfield, 160 feet south of the railroad tracks, 270 feet north of the Yadkin River, in cropland, in Surry County, North Carolina; Copeland, North Carolina USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 16 minutes 4.00 seconds N. and long. 80 degrees 42 minutes 44.00 seconds W.

Ap1—0 to 8 inches; brown (10YR 4/3) loam; common medium prominent strong brown (7.5YR 5/6) mottles; weak medium granular structure; very friable, nonsticky, nonplastic; many fine and few medium and coarse roots; few fine tubular pores; common fine mica flakes; moderately acid; clear smooth boundary.

Ap2—8 to 12 inches; brown (10YR 4/3) loam; many coarse faint strong brown (7.5YR 5/6) mottles; moderate medium subangular blocky structure parting to weak medium granular; very friable, nonsticky, nonplastic; common fine roots; few fine tubular pores; common fine mica flakes; moderately acid; abrupt wavy boundary.

Bw1—12 to 33 inches; strong brown (7.5YR 4/6) clay loam; strong coarse angular blocky structure parting to moderate medium subangular blocky; friable, nonsticky, nonplastic; few fine roots; common fine tubular pores; common fine mica flakes; moderately acid; gradual wavy boundary.

Bw2—33 to 41 inches; brown (7.5YR 4/4) and strong brown (7.5YR 5/6) loam; strong coarse prismatic structure parting to weak medium subangular blocky; friable, nonsticky, nonplastic; few fine roots; common fine tubular pores; few medium distinct irregular grayish brown (10YR 5/2) iron depletions on surfaces along root channels; common fine mica flakes; moderately acid; gradual wavy boundary.

Bw3—41 to 54 inches; dark yellowish brown (10YR 4/6) loam; many medium faint dark yellowish brown (10YR 4/4) mottles; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; common fine mica flakes; moderately acid; gradual wavy boundary.

C—54 to 60 inches; dark yellowish brown (10YR 4/4) loam; common medium faint dark yellowish brown (10YR 4/6) mottles; massive; very friable, nonsticky, nonplastic; few medium prominent irregular yellowish red (5YR 5/8) and few medium distinct irregular yellowish brown (10YR 5/4) masses of oxidized iron; common fine mica flakes; moderately acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 50 inches
Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches
Mica content: Few to many
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 35 percent throughout the profile
Redoximorphic features: Shades of red, brown, yellow, or gray in the lower subsoil and in the substratum

A or Ap horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 to 4
Texture (fine-earth)—fine sandy loam or loam

Bw horizon (upper part):
Hue—7.5YR or 10YR
Value—4 to 7
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, silty clay loam, or clay loam

Bw horizon (lower part):
Hue—7.5YR or 10YR
Value—3 to 7
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, or clay loam

Bg horizon (where present):
Hue—7.5YR to 10YR
Value—3 or 7
Chroma—1 or 2
Texture (fine-earth)—sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, or clay loam

BC horizon (where present):
Hue—7.5YR or 10YR
Value—3 to 7
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, or clay loam

C horizon:
Hue—7.5YR or 10YR
Value—3 to 7
Chroma—3 to 8
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, or clay loam

Cg horizon (where present):
Hue—7.5YR or 10YR
Value—4 to 7
Chroma—1 or 2
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, or clay loam

Comments

The Suches soils in this survey area are considered taxadjuncts to the series. They

have a water table at a depth of 2.5 to 6 feet and are Oxyaquic Dystrudepts. These differences, however, do not significantly affect the use and management of the soils.

Thunder Series

Physiographic province: Blue Ridge
Landform: Drainageways and coves on mountain slopes
Parent material: Colluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 2 to 25 percent

Associated Soils

- Cullasaja soils in similar landform positions
- Dellwood soils, which have textures of sand or loamy sand between a depth of 10 and 40 inches and are occasionally flooded; on flood plains
- Tuckasegee soils, which have less than 35 percent rock fragments in the control section and have less profile development; in similar landform positions
- Saunook soils, which have less than 35 percent rock fragments in the control section; in similar landform positions

Taxonomic Classification

Loamy-skeletal, mixed, active, mesic Humic Hapludults

Typical Pedon

Thunder very cobbly loam; located 2.5 miles southwest of Woolwine, 0.5 mile east of the intersection of State Routes 609 and 616, about 500 feet southwest of State Route 609, about 20 feet south of a trail, in woodland, in Patrick County, Virginia; Woolwine, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 46 minutes 13.00 seconds N. and long. 80 degrees 19 minutes 0.00 seconds W.

A—0 to 3 inches; dark brown (7.5YR 3/4) very cobbly loam; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine and medium and many coarse roots; common fine mica flakes; 15 percent subangular gravel and 25 percent subangular cobbles; very strongly acid; gradual irregular boundary.

Bt1—3 to 18 inches; yellowish red (5YR 4/6) very cobbly sandy clay loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine through coarse roots; very few faint clay films on all faces of peds; common fine mica flakes; 10 percent subangular gravel and 30 percent subangular cobbles; very strongly acid; gradual wavy boundary.

Bt2—18 to 24 inches; strong brown (7.5YR 4/6) extremely cobbly sandy clay loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common fine through coarse roots; very few faint clay films on all faces of peds; common fine mica flakes; 10 percent subangular gravel and 30 percent subangular cobbles; very strongly acid; gradual irregular boundary.

Bt3—24 to 49 inches; strong brown (7.5YR 4/6) extremely cobbly sandy clay loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine through coarse roots; very few faint clay films on all faces of peds; common fine mica flakes; 10 percent subangular gravel, 20 percent subangular cobbles, and 30 percent subangular stones; very strongly acid; gradual irregular boundary.

BC—49 to 60 inches; strong brown (7.5YR 4/6) extremely stony fine sandy loam; common medium distinct brown (7.5YR 5/4) mottles; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; few fine through coarse roots;

common fine mica flakes; 10 percent subangular gravel, 20 percent subangular cobbles, and 30 percent subangular stones; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Strongly acid to slightly acid, except in limed areas
Rock fragments: 25 to 85 percent in the surface and subsurface layers and 35 to 85 percent in the subsoil and substratum

A horizon:
Hue—7.5YR or 10YR
Value—2 to 4
Chroma—1 to 4
Texture (fine-earth)—sandy loam or loam

E horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam or loam

Bt horizon:
Hue—5YR to 10YR
Value—4 or 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, loam, sandy clay loam, or clay loam

C horizon (where present):
Hue—7.5YR or 10YR
Value—5 or 6
Chroma—6 or 8
Texture (fine-earth)—loamy sand or sandy loam

Thurmont Series

Physiographic province: Blue Ridge and Piedmont
Landform: Interfluves, high stream terraces, and drainageways on mountain slopes and hillslopes
Parent material: Colluvium and alluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 25 percent

Associated Soils

- Colescreek soils, which are rarely flooded; in low stream terrace positions
- Delanco soils, which are rarely flooded; in low stream terrace positions

- Wintergreen soils, which have 35 to 60 percent clay in the subsoil; in similar and adjacent landform positions

Taxonomic Classification

Fine-loamy, mixed, active, mesic Typic Hapludults

Typical Pedon

Thurmont fine sandy loam, 8 to 15 percent slopes; located 8,150 feet south and 39 degrees east of the intersection of State Routes 890 and 652, in woodland, in Franklin County, Virginia; Mountain Valley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 49 minutes 32.40 seconds N. and long. 79 degrees 43 minutes 3.00 seconds W.

Oa—0 to 1 inch; highly decomposed plant material.

A—1 to 4 inches; dark brown (7.5YR 3/3) fine sandy loam; moderate fine granular structure; very friable, nonsticky, nonplastic; many very fine through very coarse roots; few fine mica flakes; 2 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

BA—4 to 9 inches; brown (7.5YR 4/4) loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; many very fine through very coarse roots; few fine mica flakes; 2 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

Bt1—9 to 22 inches; yellowish red (5YR 4/6) loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine through coarse roots; common faint clay films on all faces of peds; few fine mica flakes; 2 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

Bt2—22 to 40 inches; yellowish red (5YR 5/6) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common faint clay films on all faces of peds; few fine mica flakes; 2 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

Bt3—40 to 50 inches; yellowish red (5YR 4/6) clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common faint clay films on all faces of peds; few fine mica flakes; 12 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

BC—50 to 57 inches; yellowish red (5YR 4/6) sandy clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few fine mica flakes; 10 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

C—57 to 62 inches; strong brown (7.5YR 5/6) clay loam; massive; friable, slightly sticky, slightly plastic; common fine irregular light gray (10YR 7/2) iron depletions and common medium and coarse irregular yellowish brown (10YR 5/8) masses of oxidized iron; few fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

Cg1—62 to 80 inches; light gray (2.5Y 7/2) sandy clay loam; massive; friable, slightly sticky, slightly plastic; common fine and medium irregular strong brown (7.5YR 5/8) masses of oxidized iron; few fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

Cg2—80 to 90 inches; white (5Y 8/1) clay; massive; firm, moderately sticky, moderately plastic; common fine and medium irregular yellowish brown (10YR 5/8) masses of oxidized iron; few fine mica flakes; 5 percent subrounded quartz gravel; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 50 inches
Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid or strongly acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum
Redoximorphic features: Shades of red, brown, yellow, or gray in the lower solum and in the substratum

A or Ap horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AB or BA horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

Btg or BCg horizon (where present):
Hue—5YR to 10YR
Value—5 to 7
Chroma—1 or 2
Texture (fine-earth)—loam, sandy clay loam, clay loam, or clay

BC horizon:
Hue—5YR to 10YR
Value—4 to 6
Chroma—6 or 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Cg horizon:
Hue—10YR to 5Y
Value—5 to 8
Chroma—1 or 2
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, loam, clay loam, or clay

Comments

The Thurmont soils in this survey area are considered taxadjuncts to the series. They have a water table at a depth of 4 to 6 feet and are Typic Hapludults. These differences, however, do not significantly affect the use and management of the soils.

Trimont Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist, mica gneiss, and amphibolite
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 90 percent

Associated Soils

- Kibler soils, which are deep to bedrock and have less development; in similar landform positions

Taxonomic Classification

Fine-loamy, mixed, active, mesic Humic Hapludults

Typical Pedon

Trimont loam; located 8,400 feet north and 49 degrees east of the intersection of State Routes 793 and 792, in woodland, in Franklin County, Virginia; Endicott, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 55 minutes 56.70 seconds N. and long. 80 degrees 9 minutes 4.20 seconds W.

A—0 to 10 inches; very dark grayish brown (10YR 3/2) loam, dark grayish brown (10YR 4/2) dry; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine through coarse roots; 1 percent subrounded quartz gravel and 2 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

Bt1—10 to 23 inches; brown (7.5YR 4/3) loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few very fine through very coarse roots; few faint clay films on all faces of peds; few fine mica flakes; 4 percent subrounded quartz gravel and 4 percent subangular mica schist channers; very strongly acid; clear smooth boundary.

Bt2—23 to 29 inches; brown (7.5YR 4/4) loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few very fine through very coarse roots; few faint clay films on all faces of peds; few fine mica flakes; 5 percent subangular mica schist channers and 5 percent subrounded quartz gravel; very strongly acid; clear smooth boundary.

BC—29 to 33 inches; dark yellowish brown (10YR 4/4) loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common fine mica flakes; 5 percent subangular mica schist channers and 5 percent subrounded quartz gravel; very strongly acid; gradual smooth boundary.

C—33 to 80 inches; brown (7.5YR 4/4 and 4/3) and dark yellowish brown (10YR 4/4) fine sandy loam; massive; loose, nonsticky, nonplastic; many fine mica flakes; 5 percent subangular mica schist channers; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common in the A and B horizons and few to many in the C horizon
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 0 to 15 percent in the surface layer and 0 to 35 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—7.5YR or 10YR
Value—2 or 3
Chroma—2 to 4
Texture (fine-earth)—fine sandy loam or loam

AB or BA horizon (where present):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 or 5
Texture (fine-earth)—fine sandy loam or loam

Bt horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

BC horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—fine sandy loam or loam

C horizon:
Hue—5YR to 10YR or multicolored
Value—4 to 6
Chroma—2 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Tuckasegee Series

Physiographic province: Blue Ridge
Landform: Drainageways and fans on mountain slopes
Parent material: Colluvium from metamorphic and igneous materials
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 8 to 45 percent

Associated Soils

- Cullasaja soils, which have more than 35 percent rock fragments between a depth of 10 and 40 inches; in similar landform positions
- Dellwood soils, which have more than 35 percent rock fragments and textures of sand or loamy sand between a depth of 10 and 40 inches and are occasionally flooded; on flood plains

Taxonomic Classification

Fine-loamy, isotic, mesic Humic Dystrudepts

Typical Pedon

Tuckasegee cobbly loam; located 7,650 feet south and 52 degrees east of the intersection of State Routes 613 and 736, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 43 minutes 54.00 seconds N. and long. 80 degrees 17 minutes 7.00 seconds W.

A—0 to 14 inches; very dark brown (7.5YR 2.5/2) cobbly loam; moderate medium granular structure; very friable, nonsticky, nonplastic; common fine tubular pores; few fine mica flakes; 6 percent subrounded gravel and 10 percent rounded cobbles; very strongly acid; clear wavy boundary.

AB—14 to 17 inches; dark brown (7.5YR 3/4) cobbly loam; weak medium granular structure; very friable, nonsticky, nonplastic; common fine tubular pores; few fine mica flakes; 6 percent subrounded gravel and 10 percent rounded cobbles; strongly acid; clear wavy boundary.

Bw1—17 to 42 inches; strong brown (7.5YR 4/6) cobbly loam; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; few fine tubular pores; common fine mica flakes; 5 percent subrounded gravel and 15 percent rounded cobbles; strongly acid; gradual wavy boundary.

Bw2—42 to 60 inches; strong brown (7.5YR 4/6) cobbly sandy clay loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; few fine tubular pores; common fine mica flakes; 5 percent subrounded gravel and 20 percent rounded cobbles; strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Cambic horizon, 6 to 50 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: Few or common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 15 to 35 percent in the surface layer and 0 to 35 percent in the subsurface layer, subsoil, and substratum

A horizon:
Hue—5YR to 10YR
Value—2 or 3
Chroma—1 to 3
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AB or BA horizon:
Hue—5YR to 10YR
Value—3 or 4
Chroma—2 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—5YR to 10YR
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or sandy clay loam

BC horizon (where present):
Hue—5YR to 10YR
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C horizon (where present):
Hue—5YR to 10YR or multicolored
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loamy sand, sandy loam, fine sandy loam, or loam

Tugglesgap Series

Physiographic province: Blue Ridge
Landform: Alluvial fans and stream terraces
Parent material: Alluvium from metamorphic and igneous materials
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 2 to 15 percent

Associated Soils

- Tugglesgap soils, which have more than 35 percent rock fragments in the control section and are somewhat poorly drained; in similar and adjacent landform positions
- Dellwood soils, which have more than 35 percent rock fragments in the control section; in positions on adjacent flood plains
- French soils, which have contrasting textures between a depth of 10 and 40 inches; in positions on adjacent flood plains
- Nikwasi soils, which have contrasting textures between a depth of 10 and 40 inches and are very poorly drained; in positions on adjacent flood plains

Taxonomic Classification

Loamy-skeletal, mixed, subactive, mesic Aquic Hapludults

Typical Pedon

Tugglesgap loam; located near Vesta, 0.2 mile east of U.S. Highway 58 and State Route 639, on U.S. Highway 58 east (85 degrees) of Little Ivy Creek, 150 yards southwest of the Old Dan River primitive Baptist Church, in a fallow field, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 42 minutes 47.00 seconds N. and long. 80 degrees 21 minutes 7.00 seconds W.

Ap—0 to 7 inches; very dark gray (10YR 3/1) loam; weak medium subangular blocky structure parting to weak coarse granular; very friable, nonsticky, nonplastic; many fine and medium roots; few fine mica flakes; 10 percent rounded gravel; very strongly acid; clear wavy boundary.

Bt1—7 to 12 inches; light olive brown (2.5Y 5/3) very gravelly loam; weak fine and medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots; few medium distinct irregular yellowish brown (10YR 5/6) and common fine prominent irregular strong brown (7.5YR 4/6) masses of oxidized iron; common fine mica flakes; 10 percent rounded gravel and 30 percent rounded cobbles; strongly acid; clear wavy boundary.

Bt2—12 to 21 inches; light yellowish brown (2.5Y 6/3) very gravelly loam; moderate medium angular blocky structure; friable, slightly sticky, slightly plastic; few fine roots; common faint clay films on all faces of peds; common medium faint irregular light brownish gray (2.5Y 6/2) iron depletions and many medium prominent irregular reddish yellow (7.5YR 6/8) masses of oxidized iron; common fine mica flakes; 15 percent rounded cobbles and 35 percent rounded gravel; strongly acid; gradual wavy boundary.

Btg1—21 to 32 inches; grayish brown (2.5Y 5/2) clay loam; strong medium angular blocky structure; friable, slightly sticky, moderately plastic; few fine roots; common faint clay films on all faces of peds; many medium faint irregular light yellowish brown (2.5Y 6/3) and many medium prominent irregular reddish yellow (7.5YR 6/8) masses of oxidized iron; few fine mica flakes; 10 percent rounded gravel; strongly acid; gradual wavy boundary.

Btg2—32 to 35 inches; gray (5Y 5/1) clay loam; strong medium angular blocky

structure; friable, moderately sticky, moderately plastic; few fine roots; common faint clay films on all faces of peds; few medium distinct irregular greenish gray (5GY 6/1) and common medium prominent irregular reddish yellow (7.5YR 6/8) masses of oxidized iron; common fine mica flakes; 10 percent rounded gravel; strongly acid; gradual wavy boundary.

C—35 to 50 inches; olive (5Y 4/3) sandy loam; massive; friable, nonsticky, nonplastic; common fine mica flakes; 10 percent rounded gravel; strongly acid; gradual wavy boundary.

2C—50 to 64 inches; dark yellowish brown (10YR 4/6) extremely paragravelly silt loam; massive; friable, nonsticky, nonplastic; common fine mica flakes; 78 percent rounded gravel; very strongly acid.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Mica content: None to common
Reaction: Very strongly acid to moderately acid, except in limed areas
Rock fragments: 10 to 60 percent in the surface and subsurface layers, 35 to 70 percent in the subsoil, and 0 to 70 percent in the substratum
Redoximorphic features: Shades of red, brown, yellow, or gray in the subsurface layer, subsoil, and substratum

A or Ap horizon:
Hue—7.5YR to 2.5Y
Value—3 or 4
Chroma—1 to 4
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam; individual subsoil horizons may be sandy clay or clay

Btg horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—1 or 2
Texture (fine-earth)—loam, sandy clay loam, or clay loam; individual subsoil horizons may be sandy clay or clay

BCg horizon (where present):
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—1 or 2
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or sandy clay loam

BC horizon (where present):
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, or sandy clay loam

C horizon:
Hue—7.5YR to 5Y

Value—4 to 6
Chroma—3 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Cg horizon (where present):
Hue—10YR to 5Y
Value—4 to 6
Chroma—1 or 2
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

2C horizon:
Hue—10YR to 5Y
Value—3 or 4
Chroma—1 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, loam, silt loam, or sandy clay loam

Udorthents

Physiographic province: Piedmont
Landform: Cut and fill areas on uplands
Parent material: Soil and non-soil fill material
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Unspecified
Depth class: Very deep
Slope range: 2 to 15 percent

Associated Soils

Udorthents are associated with many soils. Included are any soils that are adjacent to the areas excavated or filled. Associated soils generally have not been covered by more than 20 inches of fill material or have not been deeply mixed by earth-moving equipment.

Taxonomic Classification

Udorthents

Typical Pedon

Due to the inherent variability of the material, no typical pedon is available for Udorthents.

Widgett Series

Physiographic province: Blue Ridge
Landform: Mountain slopes
Parent material: Residuum from mica schist, mica gneiss, and amphibolite
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Moderately deep
Slope range: 15 to 90 percent

Associated Soils

- Kibler soils, which are deep to bedrock, have less profile development, and have less than 35 percent rock fragents in the control section; in similar and steeper landform positions

- Trimont soils, which are very deep to bedrock; in similar and steeper landform positions

Taxonomic Classification

Loamy-skeletal, mixed, semiactive, mesic Humic Hapludults

Typical Pedon

Widgett extremely channery loam; located 6.0 miles north of Stuart, 1.8 miles north of the intersection of U.S. Highway 58 and State Route 640, about 0.15 mile west of U.S. Highway 58 on a logging road, in woodland, in Patrick County, Virginia; Stuart, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 43 minutes 9.00 seconds N. and long. 80 degrees 17 minutes 55.00 seconds W.

A1—0 to 2 inches; very dark gray (2.5Y 3/1) extremely channery loam, grayish brown (2.5Y 5/2) dry; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine through coarse roots; common fine and medium tubular pores; 2 percent subrounded stones, 25 percent subrounded gravel, and 40 percent subangular channers; strongly acid; clear smooth boundary.

A2—2 to 9 inches; dark olive brown (2.5Y 3/3) extremely channery loam, light olive brown (2.5Y 5/3) dry; weak medium granular structure; very friable, nonsticky, slightly plastic; many fine through coarse roots; common fine and medium tubular pores; few fine mica flakes; 25 percent subrounded gravel and 40 percent subangular channers; strongly acid; gradual wavy boundary.

Bt1—9 to 16 inches; olive brown (2.5Y 4/4) very channery loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and medium and common coarse roots; few fine and medium tubular pores; common clay bridges between sand grains; few fine mica flakes; 50 percent subangular channers; strongly acid; gradual wavy boundary.

Bt2—16 to 24 inches; strong brown (7.5YR 5/6) very channery clay loam; moderate medium subangular and angular blocky structure; friable, moderately sticky, moderately plastic; common fine through coarse roots; few fine and medium tubular pores; few discontinuous clay films on all faces of peds; few fine mica flakes; 20 percent subangular flagstones and 65 percent subangular channers; very strongly acid; gradual irregular boundary.

Ct—24 to 35 inches; brown (10YR 5/3) and black (10YR 2/1) channers; massive; few fine through coarse roots; few discontinuous clay films on all faces of peds; few fine mica flakes; 15 percent subrounded gneiss paragravel and 20 percent subrounded gneiss gravel; very strongly acid; abrupt irregular boundary.

R—35 to 80 inches; unweathered gneiss bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Argillic horizon, 10 to 30 inches
Depth to soft bedrock: 20 to 40 inches (where present)
Depth to hard bedrock: 20 to 40 inches
Mica content: Few or common
Reaction: Extremely acid to strongly acid, except in limed areas
Rock fragments: 15 to 80 percent in the surface layer, subsurface layer, and upper subsoil; 35 to 80 percent in the lower subsoil; and 35 to 95 in the substratum

A or Ap horizon:
Hue—7.5YR to 2.5Y
Value—3 or less
Chroma—1 to 6
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

AB or BA horizon (where present):
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—5YR to 10YR; some pedons have hue of 2.5YR
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam; some pedons have subhorizons of sandy loam or fine sandy loam

BC horizon (where present):
Hue—5YR to 10YR
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

C/Bt horizon (where present):
Hue—5YR to 10YR
Value—3 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Ct horizon:
Hue—5YR to 10YR
Value—3 to 6
Chroma—3 to 8
Texture (fine-earth)—loam, sandy clay loam, or clay loam

Woolwine Series

Physiographic province: Piedmont
Landform: Hillslopes
Parent material: Residuum from mica schist, mica gneiss, metagrawacke, and high-grade metamorphic rocks
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Moderately deep
Slope range: 2 to 45 percent

Associated Soils

- Clifford soils, which are very deep to bedrock; in similar and less steep landform positions
- Fairview soils, which are very deep to bedrock; in similar and less steep landform positions
- Hickoryknob soils, which have 18 to 35 percent clay in the subsoil and are moderately deep to unweathered bedrock; in similar and steeper landform positions
- Rhodhiss soils, which have 18 to 35 percent clay in the subsoil and are very deep to bedrock; in similar and steeper landform positions
- Stott Knob soils, which have 18 to 35 percent clay in the subsoil; in similar and steeper landform positions
- Westfield soils, which are deep to partially weathered bedrock; in similar and less steep landform positions

Taxonomic Classification

Fine, kaolinitic, mesic Typic Kanhapludults

Typical Pedon

Woolwine loam; located 8,000 feet south and 45 degrees east of the intersection of State Routes 890 and 652, in woodland, in Franklin County, Virginia; Mountain Valley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 49 minutes 39.40 seconds N. and long. 79 degrees 42 minutes 56.50 seconds W.

A—0 to 2 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable, slightly hard, nonsticky, nonplastic; common very fine through very coarse roots; few fine mica flakes; 13 percent subrounded mica gneiss gravel; very strongly acid; abrupt smooth boundary.

Bt1—2 to 7 inches; yellowish red (5YR 4/6) clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine through very coarse roots; few faint clay films on all faces of peds; few fine mica flakes; 10 percent subrounded mica gneiss gravel; very strongly acid; clear smooth boundary.

Bt2—7 to 13 inches; yellowish red (5YR 4/6) clay; moderate fine subangular blocky structure; firm, slightly sticky, slightly plastic; common very fine through very coarse roots; common distinct clay films on all faces of peds; few fine mica flakes; 10 percent subrounded mica gneiss gravel; very strongly acid; clear smooth boundary.

Bt3—13 to 28 inches; red (2.5YR 4/8) clay; moderate fine subangular blocky structure; firm, moderately sticky, moderately plastic; few very fine through coarse roots; common distinct clay films on all faces of peds; few fine mica flakes; 13 percent subrounded mica gneiss gravel; very strongly acid; gradual smooth boundary.

Cr—28 to 42 inches; weathered mica gneiss bedrock.

R—42 to 80 inches; unweathered mica gneiss bedrock.

Range in Characteristics

Diagnostic subsurface horizon and its thickness: Kandic horizon, 10 to 35 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: 40 to 60 inches
Mica content: Few or common
Reaction: Extremely acid to moderately acid, except in limed areas
Rock fragments: 0 to 20 percent in the surface layer and 0 to 25 percent in the subsurface layer, subsoil, and substratum

A or Ap horizon:
Hue—5YR to 10YR
Value—3 to 5
Chroma—3 to 6
Texture (fine-earth)—fine sandy loam or loam

BA horizon (where present):
Hue—5YR to 10YR
Value—4 or 5
Chroma—4 or 6
Texture (fine-earth)—fine sandy loam, loam, or clay loam

Bt horizon:
Hue—2.5YR to 7.5YR
Value—4 or 5

Chroma—6 or 8
Texture (fine-earth)—clay loam or clay

BC horizon (where present):
Hue—2.5YR or 5YR
Value—4 or 5
Chroma—6 or 8
Texture (fine-earth)—clay loam or sandy clay loam

C horizon (where present):
Hue—2.5YR to 10YR
Value—4 to 6
Chroma—4 to 8
Texture (fine-earth)—sandy loam, fine sandy loam, or loam

Formation of the Soils

In this section, the factors and processes that have affected the formation and morphology of the soils in Patrick County are described.

Factors of Soil Formation

Soils are intimate mixtures of broken and partly or completely weathered rock, minerals, organic matter, living plants and animals, water, and air. They occur as part of the natural landscape and differ from place to place. Some of the ways in which they differ are in occurrence and degree of development of various horizons, in mineral content, in depth over bedrock, and in texture, color, and slope. The characteristics of the soils at any given area depend on the interaction of five soil-forming factors—parent material, climate, living organisms, topography, and time. Over time, topography modifies the effects of climate and living organisms on parent material *(8)*.

In theory, if all of the soil-forming factors were identical at different sites, the soils at these sites would be identical. These factors influence the genesis of every soil, but their relative importance varies from place to place. One factor may outweigh others in the formation of a soil and may determine most of its properties. For example, a very young flood-plain soil may have only faint soil horizonation because of the short time the soil-forming factors have had to work. In contrast, a soil that formed in residuum from bedrock on a stable landscape may have distinct horizons. The horizons of this soil are distinct because the soil material has remained largely in place and all soil-forming factors have been active for a long time. In general, however, the combined action of the five factors determines the character of each soil. The interaction of the five factors of soil formation is more complex for some soils than for others.

Parent Material

Parent material is the unconsolidated mass in which a soil forms. It is a product of weathering, or decomposition, of underlying bedrock or transported materials. Parent material influences the chemical, mineral, and textural composition of the soil. In the early stages of soil formation, a soil has properties similar to those of the parent material. As weathering takes place, the soil properties are modified and each soil develops its own characteristics. In Clifford and Littlejoe soils, parent material determines their mineral and textural composition. Clifford soils formed in material weathered mainly from granite and gneiss. Littlejoe soils formed in material weathered mainly from schist. Although both Clifford and Littlejoe soils are fine textured, Clifford soils have kaolinitic mineralogy and a higher percentage of sand-sized particles. Littlejoe soils have a higher percentage of silt-sized particles and mixed mineralogy. These differences are the result of having different parent materials.

The three general types of parent materials in Patrick County are residuum, colluvium, and alluvium. Residual materials weathered in place from the underlying bedrock. Colluvial materials were deposited through the forces of gravity moving materials downslope. Alluvial materials were deposited on flood plains and terraces by streams.

Residual material

Most of the soils in Patrick County have formed in residual material weathered from felsic rocks, such as granite, gneiss, and schist. Clifford, Woolwine, and Littlejoe soils are examples. Other soils, such as Bluemount soils, formed in residual material weathered from mafic rocks, such as amphibolite or diorite. Felsic and mafic rock types are subdivided based on the nature and amount of specific minerals that are present. Mafic rocks are generally richer in calcium and magnesium than felsic rocks. Both felsic and mafic rock types formed from igneous and metamorphic materials that have undergone varying degrees of transformation due to heat and pressure. Granite and other igneous rocks form deep within the earth's crust from cooling magma. Metamorphic rocks, such as gneiss and schist, have undergone a lesser degree of transformation than igneous rocks.

Colluvial material

The colluvial materials in the county have formed mainly on slopes downslope from steeper areas. Soils formed from these materials may have developed in drainageways and on colluvial benches on steep side slopes or be on gentler landscapes at the base of mountains and hills. Soils such as Saunook or Thunder formed on steeper mountainsides while Thurmont soils formed in less sloping areas.

Alluvial material

The alluvial materials on terraces and flood plains have been washed from soils that formed in residual material. Although small in acreage, soils in areas of alluvial materials are significant agriculturally. The soils on the terraces, such as Elsinboro and Braddock soils, are older than the soils on the flood plains and have a moderately to strongly developed profile. The soils on the flood plains, such as Comus and Colvard soils, are the youngest soils in the county and exhibit a weakly developed profile.

Climate

Climate affects the physical, chemical, and biological relationships in soils, mainly through the influence of precipitation and temperature. Water dissolves minerals, supports biological activity, and transports minerals and organic residue through the soil. Temperature determines the type and rate of physical, chemical, and biological activities occurring in the soil. Weathering is more rapid in a warm, humid climate than in a cold or dry climate.

Because precipitation in Patrick County exceeds evapotranspiration, the soils have been intensively leached. Much of the soluble materials that originally were present or were released through weathering has been removed, except in alluvial areas, which were recharged with eroded sediments from surrounding uplands. Most of the soils in the survey area are acid.

Precipitation is the main factor in the formation of the subsoil that characterizes most of the soils in Patrick County. In addition to leaching soluble materials, water that percolates through the soil moved clay from the surface layer to the subsoil. Except for soils that formed in recent alluvium, most of the soils in the county typically are more clayey in the subsoil than in the surface layer.

The formation of blocky structure in the subsoil of well developed soils, such as Clifford and Woolwine soils, is also influenced by climate. The development of peds, or aggregates, in the subsoil is caused partly by changes in volume of the soil mass resulting mainly from alternating periods of wetting and drying. Plentiful moisture also supports a productive forest. A moderate content of humus in the surface layer develops after large amounts of organic material have been returned to the soil.

Climate varies locally with differences in the degree and direction of slope and elevation. Generally, soils on steep uplands facing south are drier than soils on similar

landscapes facing north. Soils that form in these areas may differ even if they both have the same parent material. At higher elevations in the more rugged mountains, the climate is cooler; the precipitation, particularly snowfall, is greater; and fogs are more common. In these higher, cooler areas, soils are darker and contain more organic matter than soils at the lower elevations. For example, mountain soils such as Bellspur, Cullasaja, Trimont, and Kibler all have 2 to 4 times the amount of organic matter in their surface horizons compared to soils at lower elevations. In the higher areas, the weathering of parent materials is slower and the soils generally are thinner than soils at the lower elevations.

Precipitation is variable throughout portions of the county. For example, the higher elevation areas along the Blue Ridge Mountains and Bull Mountain receive considerably more precipitation than lower-lying areas in the Piedmont physiographic province.

Temperature is relatively uniform throughout most of the county. However, areas located at the higher elevations along the Blue Ridge Mountains and Bull Mountain have a lower mean temperature than the rest of the county. Mesic soils, or those that have a mean annual soil temperature of 47 to 58 degrees F, are mapped throughout the entire county. A detailed description of the climate is given in the section "General Nature of the Survey Area."

Living Organisms

Biologic forces are important in the formation of soils in Patrick County. Trees, shrubs, grasses, and other herbaceous plants, as well as microorganisms, earthworms, and other plant and animal life, are active agents in the soil-forming process. Climate, parent material, relief, age of the soil, and other environmental factors determine the kinds of plants and animals that live on and in the soil. Where climate or vegetation varies significantly, the soils vary accordingly.

Plants supply organic matter and transfer moisture and plant nutrients from the lower horizons to the upper horizons. Organic matter decomposes and is mixed into the soil by microorganisms and earthworms or by chemical reactions. In Patrick County, the rate of decomposition is fairly rapid because of favorable temperatures, the generally abundant soil moisture, and the kinds of microorganisms in the soil. Organic matter content in the soil is low or moderate and generally ranges from 1 to 3 percent, by volume, in the surface layer of soils in the Piedmont physiographic province. Some soils in the mountains of the survey area have as much as 15 percent organic matter in the surface layer.

Originally, the vegetation in the survey area was dense forest of hardwoods or mixed hardwoods and pine. The density of the stands, the proportion of different species, and the kinds of ground cover varied to some extent. The forests are not likely the reason for all differences in soil properties throughout the county. The leaves of deep-rooted deciduous trees vary in content of plant nutrients, but deciduous trees generally return more bases and phosphorus to the soils than coniferous trees. The litter of conifers, rhododendron, and mountain laurel produces more organic acids than that of maple and oak. Soils that form under layers of acid-forming leaf litter tend to be more highly leached than other soils, and they commonly have a very low base saturation. The layer of leaf litter also helps to recycle nutrients, reduces the depth of frost penetration, increases moisture retention, and reduces the hazard of erosion on steep slopes.

As agriculture developed in Patrick County, human activities, such as the clearing of forests and the introduction of new kinds of plants, influenced soil formation. Cultivation, artificial drainage, and liming and fertilizing changed some soil characteristics. Human activities have also caused accelerated erosion. Because of this erosion, the soil in many areas is thinner and vegetation is difficult to establish.

Some soil material has been washed from sloping areas down to depressions and flood plains. Young, or immature, soils, such as Comus or Colvard soils, formed in this washed material.

Topography

Topography, or lay of the land, affects the formation of soils by causing differences in internal drainage, surface runoff, soil temperature, and geologic erosion. Topography also affects the rate at which the soils absorb radiant energy. This absorption rate, in turn, affects native vegetation. Topography alters the effect of parent material on soil formation; thus, several different kinds of soils can form from the same kind of parent material.

Slopes in Patrick County range from nearly level to very steep. In the steeper areas, runoff is more rapid, less water percolates through the soil, the movement of clay and the translocation of bases are less, and some soil material erodes. Aspect varies greatly in these areas, affecting vegetation and soil formation. South-facing slopes are generally drier than north-facing slopes, and soils on these slopes retain less moisture.

In the gently sloping and strongly sloping areas, the soils are generally well drained and only slightly eroded. The soils in such areas are mature, having well defined horizons. Minnieville and Penhook soils are examples. Low-lying, flat areas or depressions are wetter and often ponded because of restricted drainage. Soils on less steep slopes or within drainageways often receive runoff from nearby uplands. Lateral underground seepage from the higher areas is fairly common. The soils on convex slopes are generally better drained. The soils on concave slopes tend to accumulate both runoff and water from internal drainage.

Time

The length of time that the parent material has been exposed to soil-forming processes influences the kind of soil that forms. The youngest soils in Patrick County, such as Colvard soils, formed in recent alluvium on flood plains. These soils may be stratified and have weakly expressed horizons because the soil-forming processes are interrupted by each new deposition during flooding.

Old, strongly developed soils show well defined genetic horizons. Young, less developed soils show only faint or weakly developed horizons. The soils of Patrick County range from young soils on flood plains to old soils on smooth uplands and stable, high stream terraces.

In steep and very steep areas, either creep and washing move soil material or solifluction mixes soil material before it has had sufficient time to develop a deep, developed soil profile. As a result, shallow and weakly developed soils, such as Bugley soils, are common on steeper slopes.

In other areas on mountains, colluvial soils such as Cullasaja and Tuckasegee received regular deposits of mineral and organic materials from upslope. This in essence keeps the soils young by disrupting the other processes of soil formation.

Morphology of the Soils

The interaction of soil-forming factors results in distinguishable layers, or horizons, in a soil profile. The soil profile extends from the surface of the soil down to materials that are little altered by the soil-forming processes. The five major horizons that occur in the survey area are the O, A, E, B, and C horizons.

The *O horizon* is a very dark, organic horizon that forms above the mineral soil. In Patrick County, O horizons are almost exclusively on forested soils. They result mainly

from the decomposition of hardwood and pine leaf litter and are quickly destroyed by activities such as land clearing and plowing.

The *A horizon* is a mineral surface layer which has been darkened by the accumulation of organic matter. Nikwasi soils have thick, dark A horizons.

The *E horizon* is an eluvial horizon which has been leached of clay, iron, and aluminum. Typically, it is a light-colored layer composed of resistant materials such as sand- and silt-sized quartz. While not present in all soils, E horizons are more distinct in sandy or silty forest soils.

The *B horizon* is an illuvial horizon which has an accumulation of clay, iron, aluminum, and other compounds leached from the A and E horizons. In Patrick County, soils with layers of clay accumulation, or Bt horizons, are common. Braddock and Minnieville soils have well developed Bt horizons. On younger flood plains, less developed layers, or Bw horizons, usually form. These horizons generally have weak blocky structure and are brighter in color than the overlying horizons. French and Suches soils have Bw horizons.

The *C horizon* is the parent material of the soil. It consists of material that has been modified by weathering but has been only slightly altered by the soil-forming processes. It generally lacks structure and contains few, if any, roots.

Many processes have been involved in the formation of soil horizons in the survey area. These include the accumulation of organic matter, the leaching of soluble salts, the reduction and transfer of iron, the formation and translocation of clay minerals, and the formation of soil structure. In most soils, these processes have been taking place for thousands of years.

Most of the well drained and moderately well drained soils on uplands have a yellowish brown to red B horizon. These colors are mainly caused by the presence of iron oxides. Zones of gray colors where iron has been reduced and transferred are present in the B horizons of moderately well drained soils. Reoxidized iron produces red, yellowish red, strong brown, or yellowish brown colors in areas that are oxygenated. Dillard soils exhibit this mottled pattern of color.

Somewhat poorly drained to very poorly drained soils commonly have layers of gray colors. These colors are the result of gleying, a process of intense reduction of iron during soil formation. Hatboro and Nikwasi soils exhibit these colors.

The weathering of primary minerals to form silicate clay minerals, largely through hydrolysis, commonly occurs in the soils of Patrick County. Through this process, different clay minerals such as kaolinite, vermiculite, and, to a lesser extent, smectite form. These clay minerals are translocated through the soil profile, often resulting in heavy, clayey subsoils. In the survey area, kaolinitic minerals are common. Clifford, Woolwine, Fairview, and Minnieville soils have kaolinitic mineralogy and make up a considerable percentage of the survey area. Other soils in the survey area contain a mixture of clay minerals with no one type being dominant.

Processes of Horizon Differentiation

Soils form as the result of the physical and chemical weathering of parent rocks and organic material, the transfer of materials, the transformation of materials, and the gains and losses of organic matter and minerals.

Soil formation begins with physical weathering of rocks. Frost action, expansion, contraction, and other forces break large pieces of rock into smaller pieces. The rocks and rock fragments are further reduced to sand-, silt-, and clay-sized particles. These particles form the unconsolidated material in which plants can grow. When plants and animals die, organic matter is added to the mineral material.

It is common for materials to transfer from one part of the soil to another. Organic matter in suspension moves from the surface layer to the subsoil. Calcium and other elements are leached from the surface layer. To some extent, the clay in the subsoil or

in the substratum holds these elements, but percolating ground water also leaches some elements from the soil. Also, percolating water transfers clay from the upper horizons to the lower horizons.

The roots of plants absorb bases and store them in stems, leaves, and twigs. When plants die and decay, they return to the soil the elements they had absorbed from it. In most soils in the county, the translocation and development in place of clay minerals have strongly influenced the development of soil horizons. As the soil develops, horizons gradually develop recognizable characteristics that make one horizon distinguishable from another.

The accumulation and incorporation of organic matter takes place with the decomposition of plant residue. Organic matter darkens the surface layer and helps to form the A horizon. In many places much of the surface layer has been eroded away or has been mixed with materials from underlying layers through cultivation. Replacing lost organic matter normally takes a long time. In Patrick County, the organic matter content of the surface layer is low in Braddock soils, medium in Evard soils, and high in Nikwasi soils.

Some lime and soluble salts must be leached from soils before both the translocation of clay minerals and the formation of a distinct subsoil can occur. Factors that affect leaching include the kind of original salts present in the soils, the depth to which the soil solution percolates, and the texture of the soils.

One transformation is the reduction and solubilization of ferrous iron. This change takes place under wet, saturated conditions in which water replaces molecular oxygen. It mainly occurs in soils that are not well drained. Gleying, or the reduction of iron, is evident in Hatboro soils, which have a dominantly gray subsoil. The gray color indicates the transformation of iron to the ferrous form and implies wetness. Reduced iron, which is soluble and mobile, commonly has been moved short distances in the soils in Patrick County. It has stopped either in the horizon where it originated or in an underlying horizon. It can be partly reoxidized and segregated in the form of stains, concretions, or bright yellow and red redoxiomorphic features.

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the “National Soil Survey Handbook” (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes. It is shaped like an open fan or a segment of a cone. The material was deposited by a stream at the place where it issues from a narrow mountain valley or upland valley or where a tributary stream is near or at its junction with the main stream. The fan is steepest near its apex, which points upstream, and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Alpha,alpha-dipyridyl. A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Backswamp. A flood-plain landform. Extensive, marshy or swampy, depressed areas of flood plains between natural levees and valley sides or terraces.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Base slope (geomorphology). A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. A landscape or tract of steep, rough or broken land dissected by ravines and gullies and marking a sudden change in topography.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or “chain,” of soils on a landscape that formed in similar kinds of parent material and under similar climatic conditions but that have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Cement rock. Shaly limestone used in the manufacture of cement.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. See Redoximorphic features.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Claypan. A dense, compact, slowly permeable subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. A claypan is commonly hard when dry and plastic and sticky when wet.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Concretions. See Redoximorphic features.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

Conglomerate. A coarse-grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a

matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosion (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.

Corrosion (soil survey interpretations). Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Crusts, soil. Relatively thin, somewhat continuous layers of the soil surface that often restrict water movement, air entry, and seedling emergence from the soil. They generally are less than 2 inches thick and are massive.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave. The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Dense layer. A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Draw. A small stream valley that generally is shallower and more open than a ravine or gulch and that has a broader bottom. The present stream channel may appear inadequate to have cut the drainageway that it occupies.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Earthy fill. See Mine spoil.

Ecological site. An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Most commonly applied to cliffs produced by differential erosion. Synonym: scarp.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

Fan (alluvial). A generic term for constructional landforms that are built of stratified alluvium with or without debris-flow deposits and that occur on the pediment slope, downslope from their source of alluvium.

Fan remnant. A general term for landforms that are the remaining parts of older fan landforms, such as alluvial fans, that have been either dissected or partially buried.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

First bottom. An obsolete, informal term loosely applied to the lowest flood-plain steps that are subject to regular flooding.

Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flooding frequency class. Flooding frequency class is the number of times flooding occurs over a period of time and expressed as a class. The classes of flooding are defined as follows:

None.—There is no reasonable possibility of flooding; there is a near 0 percent chance of flooding in any year or flooding occurs less than 1 time in 500 years.

Very rare.—Flooding is very unlikely but possible under extremely unusual weather conditions; there is a less than 1 percent chance of flooding in any year or flooding occurs less than 1 time in 100 years but at least 1 time in 500 years.

Rare.—Flooding is unlikely but possible under unusual weather conditions; there is a 1 to 5 percent chance of flooding in any year or flooding occurs nearly 1 to 5 times in 100 years.

Occasional.—Flooding is expected infrequently under usual weather conditions; there is a 5 to 50 percent chance of flooding in any year or flooding occurs more than 5 to 50 times in 100 years.

Frequent.—Flooding is likely to occur often under usual weather conditions; there is a more than a 50 percent chance of flooding in any year or flooding occurs more than 50 times in 100 years, but there is less than a 50 percent chance of flooding in all months in any year.

Very frequent.—Flooding is likely to occur very often under usual weather conditions; there is a more than a 50 percent chance of flooding in all months of any year.

Flood plain. The nearly level plain that borders a stream and is subject to flooding unless protected artificially. It can be subdivided as follows:

Low level flood plain.—A flood plain that is susceptible to frequent flooding.

Low to intermediate level flood plain.—A flood plain that is susceptible to occasional flooding.

High level flood plain.—A flood plain that is susceptible to rare flooding

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Flood-plain splay. A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.

Flood-plain step. An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Foothills. A region of steeply sloping hills that fringes a mountain range or high-plateau escarpment. The hills have relief of as much as 1,000 feet (300 meters).

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a

higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Head slope (geomorphology). A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An

explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net

irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluve (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. See Redoximorphic features.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Karst (topography). A kind of topography that formed in limestone, gypsum, or other soluble rocks by dissolution and that is characterized by closed depressions, sinkholes, caves, and underground drainage.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Landslide. A general, encompassing term for most types of mass movement

landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Low strength. The soil is not strong enough to support loads.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

Meander belt. The zone within which migration of a meandering channel occurs; the flood-plain area included between two imaginary lines drawn tangential to the outer bends of active channel loops.

Meander scar. A crescent-shaped, concave or linear mark on the face of a bluff or valley wall, produced by the lateral erosion of a meandering stream that impinged upon and undercut the bluff.

Meander scroll. One of a series of long, parallel, close-fitting, crescent-shaped ridges and troughs formed along the inner bank of a stream meander as the channel migrated laterally down-valley and toward the outer bank.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth’s crust. Nearly all such rocks are crystalline.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high

base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Mountain. A generic term for an elevated area of the land surface, rising more than 1,000 feet (300 meters) above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are formed primarily by tectonic activity and/or volcanic action but can also be formed by differential erosion.

Mudstone. A blocky or massive, fine-grained sedimentary rock in which the proportions of clay and silt are approximately equal. Also, a general term for such material as clay, silt, claystone, siltstone, shale, and argillite and that should be used only when the amounts of clay and silt are not known or cannot be precisely identified.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. See Redoximorphic features.

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedisediment. A layer of sediment, eroded from the shoulder and backslope of an erosional slope, that lies on and is being (or was) transported across a gently sloping erosional surface at the foot of a receding hill or mountain slope.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plateau (geomorphology). A comparatively flat area of great extent and elevation; specifically, an extensive land region that is considerably elevated (more than 100 meters) above the adjacent lower-lying terrain, is commonly limited on at least one side by an abrupt descent, and has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse-grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes,

under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Red beds. Sedimentary strata that are mainly red and are made up largely of sandstone and shale.

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:

   A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*

   B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*

C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.

2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:

A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*

B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).

3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Saturated hydraulic conductivity (K_{sat}). The amount of water that would move vertically through a unit area of saturated soil in unit time under unit hydraulic gradient. Terms describing saturated hydraulic conductivity, measured in inches per hour (micrometers per second), are as follows:

Very low	0.0 to 0.001417 (0.0 to 0.01)
Low	0.001417 to 0.01417 (0.01 to 0.1)
Moderately low	0.01417 to 0.1417 (0.1 to 1.0)
Moderately high	0.1417 to 1.417 (1.0 to 10)
High	1.417 to 14.7 (10 to 100)
Very high	more than 14.7 (more than 100)

Saturation. Wetness characterized by zero or positive pressure of the soil water.

Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silica-sesquioxide ratio. The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperate, humid regions, and especially those in the tropics, generally have a low ratio.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is

the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for slopes are as follows:

Nearly level	0 to 2 percent
Gently sloping	2 to 7 percent
Strongly sloping	7 to 15 percent
Moderately steep	15 to 25 percent
Steep	25 to 45 percent
Very steep	45 percent and higher

Slope alluvium. Sediment gradually transported down the slopes of mountains or hills primarily by nonchannel alluvial processes (i.e., slope-wash processes) and characterized by particle sorting. Lateral particle sorting is evident on long slopes. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines. Burnished peds and sorting of rounded or subrounded pebbles or cobbles distinguish these materials from unsorted colluvial deposits.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil crusts. Relatively thin, somewhat continuous layers of the soil surface that often restrict water movement, air entry, and seedling emergence from the soil. They generally are less than 2 inches thick and are massive.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum (plural, sola). The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Strath terrace. A type of stream terrace; formed as an erosional surface cut on bedrock and thinly mantled with stream deposits (alluvium).

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summer fallow. The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Talus. Rock fragments of any size or shape (commonly coarse and angular) derived from and lying at the base of a cliff or very steep rock slope. The accumulated mass of such loose broken rock formed chiefly by falling, rolling, or sliding.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is

usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion. A terrace can be subdivided as follows:

Low stream terrace.—A terrace that is susceptible to flooding.

High stream terrace.—A terrace that is not susceptible to flooding.

Terracettes. Small, irregular steplike forms on steep hillslopes, especially in pasture, formed by creep or erosion of surficial materials that may be induced or enhanced by trampling of livestock, such as sheep or cattle.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying “coarse,” “fine,” or “very fine.”

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Tread. The flat to gently sloping, topmost, laterally extensive slope of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley fill. The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth’s surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.

Well graded. Refers to soil material consisting of coarse-grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.—Temperature and Precipitation

(Recorded in the period 1971-2000 at Stuart, Virginia)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temp. higher than--	2 years in 10 will have-- Minimum temp. lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snow-fall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January--	44.8	26.5	35.6	69	1	64	4.04	2.28	5.74	7	4.4
February-	49.3	28.7	39.0	74	7	98	3.48	2.28	4.70	6	4.2
March----	58.2	35.6	46.9	82	14	252	4.60	2.52	6.45	7	1.5
April----	68.1	43.5	55.8	88	24	475	4.54	2.53	6.38	7	0.2
May------	75.5	51.9	63.7	91	34	733	4.99	2.96	6.97	8	0.0
June-----	82.0	60.0	71.0	94	44	926	4.55	2.63	6.50	7	0.0
July-----	85.8	64.0	74.9	97	52	1,080	5.12	2.68	7.22	8	0.0
August---	84.3	63.1	73.7	96	51	1,045	4.35	1.94	6.63	7	0.0
September	78.1	56.9	67.5	92	41	824	4.74	1.96	7.00	6	0.0
October--	68.2	45.1	56.7	86	27	516	3.74	1.60	5.37	5	0.0
November-	58.4	37.3	47.8	78	18	261	3.59	1.96	4.98	5	0.2
December-	49.0	30.0	39.5	71	8	107	3.58	1.65	5.44	6	1.4
Yearly:											
Average	66.8	45.2	56.0	---	---	---	---	---	---	---	---
Extreme	100	-13	---	97	-1	---	---	---	---	---	---
Total--	---	---	---	---	---	6,381	51.32	38.69	59.34	79	12.0

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

Table 2.—Freeze Dates in Spring and Fall

(Recorded in the period 1961-1990 at Stuart, Virginia)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Apr. 11	Apr. 20	May 3
2 years in 10 later than--	Apr. 3	Apr. 14	Apr. 26
5 years in 10 later than--	Mar. 18	Apr. 2	Apr. 14
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 3	Oct. 18	Oct. 5
2 years in 10 earlier than--	Nov. 10	Oct. 25	Oct. 12
5 years in 10 earlier than-	Nov. 24	Nov. 8	Oct. 24

Table 3.—Growing Season

(Recorded in the period 1972-2000 at Stuart, Virginia)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	220	199	169
8 years in 10	231	207	177
5 years in 10	250	222	193
2 years in 10	269	237	208
1 year in 10	279	245	216

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
1D	Bellspur-Kibler complex, 15 to 25 percent slopes, very rocky	229	*
1E	Bellspur-Kibler complex, 25 to 45 percent slopes, very rocky	726	0.2
2C	Bellspur-Trimont complex, 8 to 15 percent slopes, very rocky	1,178	0.4
3C	Bluemount gravelly silt loam, 8 to 15 percent slopes, stony	283	*
3D	Bluemount gravelly silt loam, 15 to 25 percent slopes, stony	576	0.2
3E	Bluemount gravelly silt loam, 25 to 45 percent slopes, stony	1,614	0.5
4B	Braddock fine sandy loam, 2 to 8 percent slopes	2,429	0.8
4C	Braddock fine sandy loam, 8 to 15 percent slopes	10,020	3.2
4D	Braddock fine sandy loam, 15 to 25 percent slopes	2,094	0.7
5B	Braddock cobbly fine sandy loam, 2 to 8 percent slopes, stony	242	*
5C	Braddock cobbly fine sandy loam, 8 to 15 percent slopes, stony	641	0.2
5D	Braddock cobbly fine sandy loam, 15 to 25 percent slopes, stony	370	0.1
6F	Bugley-Littlejoe complex, 45 to 75 percent slopes, very rocky	431	0.1
7C	Cliffield-Evard complex, 8 to 15 percent slopes, very rocky	1,923	0.6
7D	Cliffield-Evard complex, 15 to 25 percent slopes, very rocky	5,401	1.7
7E	Cliffield-Evard complex, 25 to 45 percent slopes, very rocky	32,863	10.6
7F	Cliffield-Evard complex, 45 to 90 percent slopes, very rocky	4,717	1.5
8B2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	1,418	0.5
8C2	Clifford sandy clay loam, 8 to 15 percent slopes, moderately eroded	400	0.1
9A	Colvard and Suches soils, 0 to 3 percent slopes, occasionally flooded	6,007	1.9
10A	Comus-Elsinboro complex, 0 to 4 percent slopes, occasionally flooded	72	*
11B	Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded	1,551	0.5
12C	Dillard fine sandy loam, 8 to 15 percent slopes	801	0.3
13B	Dillard-Tugglesgap complex, 2 to 8 percent slopes, rarely flooded	269	*
14C	Dillard-Tugglesgap complex, 8 to 15 percent slopes	49	*
15B	Dillsboro cobbly loam, 2 to 8 percent slopes, very stony, rarely flooded	6	*
16C	Dillsboro loam, 8 to 15 percent slopes	36	*
17B	Evard-Cowee complex, 2 to 8 percent slopes	285	*
17C	Evard-Cowee complex, 8 to 15 percent slopes	2,358	0.8
17D	Evard-Cowee complex, 15 to 25 percent slopes	1,637	0.5
17E	Evard-Cowee complex, 25 to 45 percent slopes	1,373	0.4
18B	Evard-Cowee complex, 2 to 8 percent slopes, very stony	6	*
18C	Evard-Cowee complex, 8 to 15 percent slopes, very stony	99	*
18D	Evard-Cowee complex, 15 to 25 percent slopes, very stony	266	*
18E	Evard-Cowee complex, 25 to 45 percent slopes, very stony	284	*
19B2	Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	3,484	1.1
19C2	Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded	40,437	13.0
19D2	Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded	25,443	8.2
20B	Fairview cobbly fine sandy loam, 2 to 8 percent slopes, very stony	15	*
20C	Fairview cobbly fine sandy loam, 8 to 15 percent slopes, very stony	1,929	0.6
20D	Fairview cobbly fine sandy loam, 15 to 25 percent slopes, very stony	2,609	0.8
21E	Fairview-Stott Knob complex, 25 to 45 percent slopes	10,758	3.5
22E	Fairview-Stott Knob complex, 25 to 45 percent slopes, very stony	693	0.2
23C	Fairystone-Littlejoe complex, 8 to 15 percent slopes	1,448	0.5
24D	Fairystone-Littlejoe complex, 15 to 25 percent slopes, stony	405	0.1
25E	Fairystone-Littlejoe complex, 25 to 45 percent slopes, rocky	2,225	0.7
26A	French loam, 0 to 3 percent slopes, occasionally flooded	10,423	3.4
27A	French-Dellwood complex, 0 to 4 percent slopes, frequently flooded	1,028	0.3
28D	Goblintown-Penhook complex, 15 to 25 percent slopes	229	*
28E	Goblintown-Penhook complex, 25 to 45 percent slopes	572	0.2
29A	Hatboro loam, 0 to 2 percent slopes, frequently flooded	878	0.3
30F	Hickoryknob-Rhodhiss complex, 45 to 75 percent slopes, rocky	456	0.1
31C	Meadowfield-Stott Knob complex, 8 to 15 percent slopes, very stony	969	0.3
31D	Meadowfield-Stott Knob complex, 15 to 25 percent slopes, very stony	1,726	0.6
32E	Meadowfield-Stott Knob complex, 25 to 45 percent slopes, very rocky	6,355	2.0
32F	Meadowfield-Stott Knob complex, 45 to 90 percent slopes, very rocky	992	0.3
33B	Minnieville loam, 2 to 8 percent slopes	794	0.3
33C	Minnieville loam, 8 to 15 percent slopes	6,883	2.2
33D	Minnieville loam, 15 to 25 percent slopes	3,549	1.1
33E	Minnieville loam, 25 to 45 percent slopes	570	0.2
34B	Minnieville-Redbrush complex, 2 to 8 percent slopes	78	*

See footnote at end of table.

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
34C	Minnieville-Redbrush complex, 8 to 15 percent slopes	643	0.2
34D	Minnieville-Redbrush complex, 15 to 25 percent slopes	442	0.1
35A	Nikwasi-Dellwood complex, 0 to 4 percent slopes, frequently flooded	620	0.2
36D	Peaks-Edneyville complex, 15 to 25 percent slopes, very rocky	89	*
36E	Peaks-Edneyville complex, 25 to 45 percent slopes, very rocky	1,770	0.6
37F	Peaks-Rock outcrop complex, 45 to 90 percent slopes, very stony	5,473	1.8
38C	Penhook-Goblintown complex, 8 to 15 percent slopes	394	0.1
39C	Penhook-Strawfield complex, 8 to 15 percent slopes	738	0.2
39D	Penhook-Strawfield complex, 15 to 25 percent slopes	63	*
39E	Penhook-Strawfield complex, 25 to 45 percent slopes	988	0.3
40E	Rhodhiss-Stott Knob complex, 25 to 45 percent slopes	16,013	5.1
41B	Saunook loam, 2 to 8 percent slopes	572	0.2
41C	Saunook loam, 8 to 15 percent slopes	1,746	0.6
41D	Saunook loam, 15 to 25 percent slopes	470	0.2
42B	Saunook-Thunder complex, 2 to 8 percent slopes, very stony	17	*
42C	Saunook-Thunder complex, 8 to 15 percent slopes, very stony	463	0.1
42D	Saunook-Thunder complex, 15 to 25 percent slopes, very stony	598	0.2
43B	Thurmont fine sandy loam, 2 to 8 percent slopes	2,163	0.7
43C	Thurmont fine sandy loam, 8 to 15 percent slopes	3,259	1.0
43D	Thurmont fine sandy loam, 15 to 25 percent slopes	788	0.3
44C	Thurmont cobbly fine sandy loam, 8 to 15 percent slopes, very stony	343	0.1
44D	Thurmont cobbly fine sandy loam, 15 to 25 percent slopes, very stony	173	*
45B	Trimont-Kibler complex, 2 to 8 percent slopes	1,100	0.4
45C	Trimont-Kibler complex, 8 to 15 percent slopes	5,659	1.8
45D	Trimont-Kibler complex, 15 to 25 percent slopes	3,465	1.1
45E	Trimont-Kibler complex, 25 to 45 percent slopes	1,262	0.4
46B	Trimont-Kibler complex, 2 to 8 percent slopes, very stony	264	*
46C	Trimont-Kibler complex, 8 to 15 percent slopes, very stony	1,144	0.4
46D	Trimont-Kibler complex, 15 to 25 percent slopes, very stony	1,949	0.6
46E	Trimont-Kibler complex, 25 to 45 percent slopes, very stony	678	0.2
47C	Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, very stony	209	*
47D	Tuckasegee-Cullasaja complex, 15 to 25 percent slopes, very stony	1,063	0.3
47E	Tuckasegee-Cullasaja complex, 25 to 45 percent slopes, very stony	525	0.2
48	Udorthents, loamy	153	*
49F	Widgett-Kibler complex, 45 to 75 percent slopes, very rocky	3,079	1.0
50D	Widgett-Trimont complex, 15 to 25 percent slopes, very rocky	2,044	0.7
50E	Widgett-Trimont complex, 25 to 45 percent slopes, very rocky	7,813	2.5
50F	Widgett-Trimont complex, 45 to 90 percent slopes, very rocky	2,621	0.8
51B	Woolwine-Fairview complex, 2 to 8 percent slopes, stony	1,078	0.3
51C	Woolwine-Fairview complex, 8 to 15 percent slopes, stony	10,116	3.3
51D	Woolwine-Fairview complex, 15 to 25 percent slopes, stony	5,456	1.8
51E	Woolwine-Fairview complex, 25 to 45 percent slopes, stony	13,511	4.3
W	Water	2,484	0.8
	Total	311,100	100.0

* Less than 0.1 percent.

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
1D:							
Bellspur----------	7s	JJ	---	---	---	---	---
Kibler-----------	7s	FF	---	---	---	---	---
1E:							
Bellspur----------	7e	JJ	---	---	---	---	---
Kibler-----------	7e	FF	---	---	---	---	---
2C:							
Bellspur----------	6s	JJ	---	---	---	---	---
Trimont----------	6s	FF	---	---	---	---	---
3C:							
Bluemount---------	4s	JJ	---	---	---	---	---
3D:							
Bluemount---------	6s	JJ	---	---	---	---	---
3E:							
Bluemount---------	7e	JJ	---	---	---	---	---
4B:							
Braddock----------	2e	O	5.5	80	130	21.0	4.0
4C:							
Braddock----------	3e	O	4.8	70	114	19.0	3.5
4D:							
Braddock----------	4e	O	4.4	64	104	17.0	3.2
5B:							
Braddock----------	3s	O	---	---	---	---	---
5C:							
Braddock----------	4s	O	---	---	---	---	---
5D:							
Braddock----------	6s	O	---	---	---	---	---
6F:							
Bugley-----------	7e	JJ	---	---	---	---	---
Littlejoe---------	7e	V	---	---	---	---	---
7C:							
Cliffield---------	6s	JJ	---	---	---	---	---
Evard------------	6s	L	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
7D:							
Cliffield---------	7s	JJ	---	---	---	---	---
Evard------------	6s	L	---	---	---	---	---
7E:							
Cliffield---------	7e	JJ	---	---	---	---	---
Evard------------	7e	L	---	---	---	---	---
7F:							
Cliffield---------	7e	JJ	---	---	---	---	---
Evard------------	7e	L	---	---	---	---	---
8B2:							
Clifford---------	2e	X	4.0	70	100	18.0	3.5
8C2:							
Clifford---------	3e	X	4.0	70	100	18.0	3.5
9A:							
Colvard----------	2s	II	---	60	65	9.0	---
Suches-----------	2w	A	6.0	80	160	27.0	4.5
10A:							
Comus------------	1	A	6.0	80	160	27.0	4.5
Elsinboro---------	2e	L	4.0	80	130	21.0	4.0
11B:							
Dillard----------	2e	G	5.5	80	140	22.0	4.5
12C:							
Dillard----------	3e	G	4.8	70	123	20.0	4.0
13B:							
Dillard----------	2e	G	5.5	80	140	22.0	4.5
Tugglesgap--------	4w	CC	---	70	85	12.0	3.5
14C:							
Dillard----------	3e	G	4.8	70	123	20.0	4.0
Tugglesgap--------	4w	CC	---	62	75	10.0	3.1
15B:							
Dillsboro---------	6s	O	---	---	---	---	---
16C:							
Dillsboro---------	3e	O	4.8	70	114	19.0	3.5
17B:							
Evard------------	2e	L	4.0	80	130	21.0	4.0
Cowee------------	3s	N	5.5	80	130	21.0	4.0

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
17C:							
Evard	3e	L	3.5	70	114	19.0	3.5
Cowee	4s	N	4.8	70	114	19.0	3.5
17D:							
Evard	4e	L	3.2	64	104	17.0	3.2
Cowee	6s	N	4.4	64	104	17.0	3.2
17E:							
Evard	7e	L	---	---	---	---	---
Cowee	7e	N	---	---	---	---	---
18B:							
Evard	6s	L	---	---	---	---	---
Cowee	6s	N	---	---	---	---	---
18C:							
Evard	6s	L	---	---	---	---	---
Cowee	6s	N	---	---	---	---	---
18D:							
Evard	7s	L	---	---	---	---	---
Cowee	7s	N	---	---	---	---	---
18E:							
Evard	7e	L	---	---	---	---	---
Cowee	7e	N	---	---	---	---	---
19B2:							
Fairview	2e	X	4.0	70	100	17.0	3.5
19C2:							
Fairview	3e	X	4.0	70	100	17.0	3.5
19D2:							
Fairview	4e	X	4.0	70	100	17.0	3.5
20B:							
Fairview	6s	X	---	---	---	---	---
20C:							
Fairview	6s	X	---	---	---	---	---
20D:							
Fairview	7s	X	---	---	---	---	---
21E:							
Fairview	7e	X	---	---	---	---	---
Stott Knob	7e	N	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
22E:							
Fairview----------	7e	X	---	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---	---
23C:							
Fairystone--------	3e	X	3.5	62	88	12.0	3.1
Littlejoe---------	3e	V	3.5	62	88	12.0	3.1
24D:							
Fairystone--------	4e	X	---	---	---	---	---
Littlejoe---------	6s	V	---	---	---	---	---
25E:							
Fairystone--------	7e	X	---	---	---	---	---
Littlejoe---------	7e	V	---	---	---	---	---
26A:							
French------------	2w	A	6.0	80	160	27.0	4.5
27A:							
French------------	3w	A	6.0	80	160	27.0	4.5
Dellwood----------	6s	CC	---	70	85	12.0	3.5
28D:							
Goblintown--------	4e	V	3.2	56	80	11.0	2.8
Penhook-----------	4e	X	3.2	56	80	11.0	2.8
28E:							
Goblintown--------	7e	V	---	---	---	---	---
Penhook-----------	7e	X	---	---	---	---	---
29A:							
Hatboro-----------	6w	HH	---	60	85	12.0	3.0
30F:							
Hickoryknob-------	7e	N	---	---	---	---	---
Rhodhiss----------	7e	X	---	---	---	---	---
31C:							
Meadowfield-------	6s	JJ	---	---	---	---	---
Stott Knob--------	6s	N	---	---	---	---	---
31D:							
Meadowfield-------	7s	JJ	---	---	---	---	---
Stott Knob--------	7s	N	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
32E:							
Meadowfield-------	7e	JJ	---	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---	---
32F:							
Meadowfield-------	7e	JJ	---	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---	---
33B:							
Minnieville-------	2e	N	5.5	80	130	21.0	4.0
33C:							
Minnieville-------	3e	N	4.8	70	114	19.0	3.5
33D:							
Minnieville-------	4e	N	4.4	64	104	17.0	3.2
33E:							
Minnieville-------	7e	N	---	---	---	---	---
34B:							
Minnieville-------	2e	N	5.5	80	130	21.0	4.0
Redbrush----------	2e	Y	---	60	100	13.0	3.5
34C:							
Minnieville-------	3e	N	4.8	70	114	19.0	3.5
Redbrush----------	3e	Y	---	53	88	12.0	3.1
34D:							
Minnieville-------	4e	N	4.4	64	104	17.0	3.2
Redbrush----------	4e	Y	---	48	80	11.0	2.8
35A:							
Nikwasi-----------	7w	EE	---	60	85	11.0	---
Dellwood----------	6s	CC	---	70	85	10.0	3.5
36D:							
Peaks-------------	7s	JJ	---	---	---	---	---
Edneyville--------	7s	GG	---	---	---	---	---
36E:							
Peaks-------------	7e	JJ	---	---	---	---	---
Edneyville--------	7e	GG	---	---	---	---	---
37F:							
Peaks-------------	7s	JJ	---	---	---	---	---
Rock outcrop------	8s	---	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
38C:							
Penhook-----------	3e	X	3.5	62	88	12.0	3.1
Goblintown--------	3e	V	3.5	62	88	12.0	3.1
39C:							
Penhook-----------	3e	X	3.5	62	88	12.0	3.1
Strawfield--------	3e	X	3.5	62	88	12.0	3.1
39D:							
Penhook-----------	4e	X	3.2	56	80	11.0	2.8
Strawfield--------	4e	X	3.2	56	80	11.0	2.8
39E:							
Penhook-----------	7e	X	---	---	---	---	---
Strawfield--------	7e	X	---	---	---	---	---
40E:							
Rhodhiss----------	7e	X	---	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---	---
41B:							
Saunook-----------	2e	L	4.0	80	130	21.0	4.0
41C:							
Saunook-----------	3e	L	3.5	70	114	19.0	3.5
41D:							
Saunook-----------	4e	L	3.2	64	104	17.0	3.2
42B:							
Saunook-----------	6s	L	---	---	---	---	---
Thunder-----------	6s	GG	---	---	---	---	---
42C:							
Saunook-----------	6s	L	---	---	---	---	---
Thunder-----------	6s	GG	---	---	---	---	---
42D:							
Saunook-----------	7s	L	---	---	---	---	---
Thunder-----------	7s	GG	---	---	---	---	---
43B:							
Thurmont----------	2e	L	4.0	80	130	21.0	4.0
43C:							
Thurmont----------	3e	L	3.5	70	114	19.0	3.5
43D:							
Thurmont----------	4e	L	3.2	64	104	17.0	3.2

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
44C:							
Thurmont----------	6s	L	---	---	---	---	---
44D:							
Thurmont----------	7s	L	---	---	---	---	---
45B:							
Trimont-----------	2e	FF	---	60	85	12.0	3.5
Kibler------------	2e	FF	---	60	85	12.0	3.5
45C:							
Trimont-----------	3e	FF	---	53	75	10.0	3.1
Kibler------------	3e	FF	---	53	75	10.0	3.1
45D:							
Trimont-----------	4e	FF	---	48	68	9.0	2.8
Kibler------------	4e	FF	---	48	68	9.0	2.8
45E:							
Trimont-----------	7e	FF	---	---	---	---	---
Kibler------------	7e	FF	---	---	---	---	---
46B:							
Trimont-----------	6s	FF	---	---	---	---	---
Kibler------------	6s	FF	---	---	---	---	---
46C:							
Trimont-----------	6s	FF	---	---	---	---	---
Kibler------------	6s	FF	---	---	---	---	---
46D:							
Trimont-----------	7s	FF	---	---	---	---	---
Kibler------------	7s	FF	---	---	---	---	---
46E:							
Trimont-----------	7e	FF	---	---	---	---	---
Kibler------------	7e	FF	---	---	---	---	---
47C:							
Tuckasegee--------	6s	G	---	---	---	---	---
Cullasaja---------	6s	FF	---	---	---	---	---
47D:							
Tuckasegee--------	7s	G	---	---	---	---	---
Cullasaja---------	7s	FF	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part I—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Alfalfa hay	Barley	Corn	Corn silage	Grass-legume hay
			Tons	Bu	Bu	Tons	Tons
47E:							
Tuckasegee	7e	G	---	---	---	---	---
Cullasaja	7e	FF	---	---	---	---	---
48. Udorthents							
49F:							
Widgett	7e	JJ	---	---	---	---	---
Kibler	7e	FF	---	---	---	---	---
50D:							
Widgett	7s	JJ	---	---	---	---	---
Trimont	7s	FF	---	---	---	---	---
50E:							
Widgett	7e	JJ	---	---	---	---	---
Trimont	7e	FF	---	---	---	---	---
50F:							
Widgett	7e	JJ	---	---	---	---	---
Trimont	7e	FF	---	---	---	---	---
51B:							
Woolwine	3s	V	---	---	---	---	---
Fairview	3s	X	---	---	---	---	---
51C:							
Woolwine	4s	V	---	---	---	---	---
Fairview	4s	X	---	---	---	---	---
51D:							
Woolwine	6s	V	---	---	---	---	---
Fairview	6s	X	---	---	---	---	---
51E:							
Woolwine	7e	V	---	---	---	---	---
Fairview	7e	X	---	---	---	---	---
W. Water							

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
1D:						
Bellspur----------	7s	JJ	8.5	---	---	---
Kibler------------	7s	FF	8.5	---	---	---
1E:						
Bellspur----------	7e	JJ	---	---	---	---
Kibler------------	7e	FF	---	---	---	---
2C:						
Bellspur----------	6s	JJ	9.0	---	---	---
Trimont-----------	6s	FF	10.5	---	---	---
3C:						
Bluemount---------	4s	JJ	7.5	---	---	---
3D:						
Bluemount---------	6s	JJ	7.0	---	---	---
3E:						
Bluemount---------	7e	JJ	---	---	---	---
4B:						
Braddock----------	2e	O	10.0	40	2940	64
4C:						
Braddock----------	3e	O	9.5	35	2400	56
4D:						
Braddock----------	4e	O	9.0	32	---	51
5B:						
Braddock----------	3s	O	9.0	---	2350	---
5C:						
Braddock----------	4s	O	8.5	---	1920	---
5D:						
Braddock----------	6s	O	8.0	---	---	---
6F:						
Bugley------------	7e	JJ	3.0	---	---	---
Littlejoe---------	7e	V	---	---	---	---
7C:						
Cliffield---------	6s	JJ	7.0	---	---	---
Evard-------------	6s	L	8.0	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
7D:						
Cliffield	7s	JJ	6.5	---	---	---
Evard	6s	L	7.5	---	---	---
7E:						
Cliffield	7e	JJ	---	---	---	---
Evard	7e	L	---	---	---	---
7F:						
Cliffield	7e	JJ	---	---	---	---
Evard	7e	L	---	---	---	---
8B2:						
Clifford	2e	X	9.5	35	2600	56
8C2:						
Clifford	3e	X	9.0	35	2500	56
9A:						
Colvard	2s	II	11.0	20	---	48
Suches	2w	A	10.0	50	2200	64
10A:						
Comus	1	A	11.5	50	2700	64
Elsinboro	2e	L	11.5	40	2800	64
11B:						
Dillard	2e	G	11.0	40	2550	64
12C:						
Dillard	3e	G	10.5	35	2550	56
13B:						
Dillard	2e	G	11.0	40	2550	64
Tugglesgap	4w	CC	9.0	25	2000	56
14C:						
Dillard	3e	G	10.5	35	2550	56
Tugglesgap	4w	CC	8.5	22	2000	49
15B:						
Dillsboro	6s	O	---	---	---	---
16C:						
Dillsboro	3e	O	---	35	---	56
17B:						
Evard	2e	L	8.5	40	---	64
Cowee	3s	N	8.5	40	---	64

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
17C:						
Evard-------------	3e	L	8.0	35	---	56
Cowee-------------	4s	N	8.0	35	---	56
17D:						
Evard-------------	4e	L	7.5	32	---	51
Cowee-------------	6s	N	7.7	32	---	51
17E:						
Evard-------------	7e	L	---	---	---	---
Cowee-------------	7e	N	---	---	---	---
18B:						
Evard-------------	6s	L	8.5	---	---	---
Cowee-------------	6s	N	8.5	---	---	---
18C:						
Evard-------------	6s	L	8.0	---	---	---
Cowee-------------	6s	N	8.0	---	---	---
18D:						
Evard-------------	7s	L	7.5	---	---	---
Cowee-------------	7s	N	7.5	---	---	---
18E:						
Evard-------------	7e	L	---	---	---	---
Cowee-------------	7e	N	---	---	---	---
19B2:						
Fairview----------	2e	X	8.5	35	2550	56
19C2:						
Fairview----------	3e	X	8.0	35	2080	56
19D2:						
Fairview----------	4e	X	7.5	35	---	56
20B:						
Fairview----------	6s	X	9.0	---	2040	---
20C:						
Fairview----------	6s	X	8.5	---	1665	---
20D:						
Fairview----------	7s	X	8.0	---	---	---
21E:						
Fairview----------	7e	X	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
22E:						
Fairview----------	7e	X	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---
23C:						
Fairystone--------	3e	X	7.0	31	1800	49
Littlejoe---------	3e	V	8.0	31	2000	49
24D:						
Fairystone--------	4e	X	6.5	---	---	---
Littlejoe---------	6s	V	7.5	---	---	---
25E:						
Fairystone--------	7e	X	---	---	---	---
Littlejoe---------	7e	V	---	---	---	---
26A:						
French------------	2w	A	10.0	50	2500	64
27A:						
French------------	3w	A	10.0	50	2500	64
Dellwood----------	6s	CC	10.5	25	---	56
28D:						
Goblintown--------	4e	V	6.5	28	---	45
Penhook-----------	4e	X	7.5	28	---	45
28E:						
Goblintown--------	7e	V	---	---	---	---
Penhook-----------	7e	X	---	---	---	---
29A:						
Hatboro-----------	6w	HH	7.0	25	---	48
30F:						
Hickoryknob-------	7e	N	---	---	---	---
Rhodhiss----------	7e	X	---	---	---	---
31C:						
Meadowfield-------	6s	JJ	5.0	---	---	---
Stott Knob--------	6s	N	6.5	---	---	---
31D:						
Meadowfield-------	7s	JJ	4.5	---	---	---
Stott Knob--------	7s	N	6.0	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
32E:						
Meadowfield-------	7e	JJ	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---
32F:						
Meadowfield-------	7e	JJ	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---
33B:						
Minnieville-------	2e	N	10.0	40	2500	64
33C:						
Minnieville-------	3e	N	9.5	35	2400	56
33D:						
Minnieville-------	4e	N	9.0	32	---	51
33E:						
Minnieville-------	7e	N	---	---	---	---
34B:						
Minnieville-------	2e	N	9.5	40	2400	64
Redbrush----------	2e	Y	7.5	35	1800	48
34C:						
Minnieville-------	3e	N	9.0	35	2400	56
Redbrush----------	3e	Y	7.0	31	1800	42
34D:						
Minnieville-------	4e	N	8.5	32	---	51
Redbrush----------	4e	Y	6.5	28	---	38
35A:						
Nikwasi-----------	7w	EE	---	25	1000	48
Dellwood----------	6s	CC	10.5	25	---	56
36D:						
Peaks-------------	7s	JJ	5.0	---	---	---
Edneyville--------	7s	GG	6.5	---	---	---
36E:						
Peaks-------------	7e	JJ	---	---	---	---
Edneyville--------	7e	GG	---	---	---	---
37F:						
Peaks-------------	7s	JJ	---	---	---	---
Rock outcrop------	8s	---	---	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
38C:						
Penhook-----------	3e	X	8.0	31	---	49
Goblintown--------	3e	V	7.0	31	---	49
39C:						
Penhook-----------	3e	X	8.0	31	2100	49
Strawfield--------	3e	X	7.0	31	1800	49
39D:						
Penhook-----------	4e	X	7.5	28	---	45
Strawfield--------	4e	X	6.5	28	---	45
39E:						
Penhook-----------	7e	X	---	---	---	---
Strawfield--------	7e	X	---	---	---	---
40E:						
Rhodhiss----------	7e	X	---	---	---	---
Stott Knob--------	7e	N	---	---	---	---
41B:						
Saunook-----------	2e	L	10.0	40	---	64
41C:						
Saunook-----------	3e	L	9.5	35	---	56
41D:						
Saunook-----------	4e	L	9.0	32	---	51
42B:						
Saunook-----------	6s	L	10.0	---	---	---
Thunder-----------	6s	GG	10.0	---	---	---
42C:						
Saunook-----------	6s	L	9.5	---	---	---
Thunder-----------	6s	GG	9.5	---	---	---
42D:						
Saunook-----------	7s	L	9.0	---	---	---
Thunder-----------	7s	GG	9.0	---	---	---
43B:						
Thurmont----------	2e	L	11.0	40	2600	64
43C:						
Thurmont----------	3e	L	10.5	35	2600	56
43D:						
Thurmont----------	4e	L	10.0	32	2600	51

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
44C:						
Thurmont----------	6s	L	10.5	---	---	---
44D:						
Thurmont----------	7s	L	10.0	---	---	---
45B:						
Trimont-----------	2e	FF	11.0	25	---	48
Kibler------------	2e	FF	9.5	25	---	48
45C:						
Trimont-----------	3e	FF	10.5	22	---	42
Kibler------------	3e	FF	9.0	22	---	42
45D:						
Trimont-----------	4e	FF	10.0	20	---	38
Kibler------------	4e	FF	8.5	20	---	38
45E:						
Trimont-----------	7e	FF	---	---	---	---
Kibler------------	7e	FF	---	---	---	---
46B:						
Trimont-----------	6s	FF	11.0	---	---	---
Kibler------------	6s	FF	9.5	---	---	---
46C:						
Trimont-----------	6s	FF	10.5	---	---	---
Kibler------------	6s	FF	9.0	---	---	---
46D:						
Trimont-----------	7s	FF	10.0	---	---	---
Kibler------------	7s	FF	8.5	---	---	---
46E:						
Trimont-----------	7e	FF	---	---	---	---
Kibler------------	7e	FF	---	---	---	---
47C:						
Tuckasegee--------	6s	G	11.0	---	---	---
Cullasaja---------	6s	FF	10.5	---	---	---
47D:						
Tuckasegee--------	7s	G	10.5	---	---	---
Cullasaja---------	7s	FF	10.0	---	---	---

Table 5.—Land Capability Class, Virginia Soil Management Group, and Yields per Acre, Part II—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Pasture	Soybeans	Tobacco	Wheat
			AUM	Bu	Lbs	Bu
47E:						
Tuckasegee	7e	G	---	---	---	---
Cullasaja	7e	FF	---	---	---	---
48. Udorthents						
49F:						
Widgett	7e	JJ	---	---	---	---
Kibler	7e	FF	---	---	---	---
50D:						
Widgett	7s	JJ	8.5	---	---	---
Trimont	7s	FF	10.0	---	---	---
50E:						
Widgett	7e	JJ	---	---	---	---
Trimont	7e	FF	---	---	---	---
50F:						
Widgett	7e	JJ	---	---	---	---
Trimont	7e	FF	---	---	---	---
51B:						
Woolwine	3s	V	7.0	---	---	---
Fairview	3s	X	9.0	---	---	---
51C:						
Woolwine	4s	V	6.5	---	---	---
Fairview	4s	X	8.5	---	---	---
51D:						
Woolwine	6s	V	6.0	---	---	---
Fairview	6s	X	8.0	---	---	---
51E:						
Woolwine	7e	V	---	---	---	---
Fairview	7e	X	---	---	---	---
W. Water						

Table 6.—Prime and other Important Farmland

(Only the soils considered prime or important farmland are listed. Urban or built-up areas listed are not considered prime or important farmland. If a soil is prime or important only under certain conditions, the conditions are specified in the "farmland classifica

Map symbol	Map unit name	Farmland cl
4B	Braddock fine sandy loam, 2 to 8 percent slopes	All areas are prime
9A	Colvard and Suches soils, 0 to 3 percent slopes, occasionally flooded	All areas are prime
10A	Comus-Elsinboro complex, 0 to 4 percent slopes, occasionally flooded	All areas are prime
11B	Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded	All areas are prime
17B	Evard-Cowee complex, 2 to 8 percent slopes	All areas are prime
26A	French loam, 0 to 3 percent slopes, occasionally flooded	All areas are prime
33B	Minnieville loam, 2 to 8 percent slopes	All areas are prime
34B	Minnieville-Redbrush complex, 2 to 8 percent slopes	All areas are prime
41B	Saunook loam, 2 to 8 percent slopes	All areas are prime
43B	Thurmont fine sandy loam, 2 to 8 percent slopes	All areas are prime
45B	Trimont-Kibler complex, 2 to 8 percent slopes	All areas are prime
1D	Bellspur-Kibler complex, 15 to 25 percent slopes, very rocky	Farmland of statewid
2C	Bellspur-Trimont complex, 8 to 15 percent slopes, very rocky	Farmland of statewid
3C	Bluemount gravelly silt loam, 8 to 15 percent slopes, stony	Farmland of statewid
3D	Bluemount gravelly silt loam, 15 to 25 percent slopes, stony	Farmland of statewid
4C	Braddock fine sandy loam, 8 to 15 percent slopes	Farmland of statewid
4D	Braddock fine sandy loam, 15 to 25 percent slopes	Farmland of statewid
5B	Braddock cobbly fine sandy loam, 2 to 8 percent slopes, stony	Farmland of statewid
5C	Braddock cobbly fine sandy loam, 8 to 15 percent slopes, stony	Farmland of statewid
5D	Braddock cobbly fine sandy loam, 15 to 25 percent slopes, stony	Farmland of statewid
7C	Cliffield-Evard complex, 8 to 15 percent slopes, very rocky	Farmland of statewid
7D	Cliffield-Evard complex, 15 to 25 percent slopes, very rocky	Farmland of statewid
8B2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	Farmland of statewid
8C2	Clifford sandy clay loam, 8 to 15 percent slopes, moderately eroded	Farmland of statewid
12C	Dillard fine sandy loam, 8 to 15 percent slopes	Farmland of statewid
13B	Dillard-Tugglesgap complex, 2 to 8 percent slopes, rarely flooded	Farmland of statewid
14C	Dillard-Tugglesgap complex, 8 to 15 percent slopes	Farmland of statewid
15B	Dillsboro cobbly loam, 2 to 8 percent slopes, very stony, rarely flooded	Farmland of statewid
16C	Dillsboro loam, 8 to 15 percent slopes	Farmland of statewid
17C	Evard-Cowee complex, 8 to 15 percent slopes	Farmland of statewid
17D	Evard-Cowee complex, 15 to 25 percent slopes	Farmland of statewid
18B	Evard-Cowee complex, 2 to 8 percent slopes, very stony	Farmland of statewid
18C	Evard-Cowee complex, 8 to 15 percent slopes, very stony	Farmland of statewid
18D	Evard-Cowee complex, 15 to 25 percent slopes, very stony	Farmland of statewid

Table 6.—Prime and other Important Farmland—Continued

Map symbol	Map unit name	Farmland cl
19B2	Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	Farmland of statewid
19C2	Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded	Farmland of statewid
19D2	Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded	Farmland of statewid
20B	Fairview cobbly fine sandy loam, 2 to 8 percent slopes, very stony	Farmland of statewid
20C	Fairview cobbly fine sandy loam, 8 to 15 percent slopes, very stony	Farmland of statewid
20D	Fairview cobbly fine sandy loam, 15 to 25 percent slopes, very stony	Farmland of statewid
23C	Fairystone-Littlejoe complex, 8 to 15 percent slopes	Farmland of statewid
24D	Fairystone-Littlejoe complex, 15 to 25 percent slopes, stony	Farmland of statewid
28D	Goblintown-Penhook complex, 15 to 25 percent slopes	Farmland of statewid
31C	Meadowfield-Stott Knob complex, 8 to 15 percent slopes, very stony	Farmland of statewid
31D	Meadowfield-Stott Knob complex, 15 to 25 percent slopes, very stony	Farmland of statewid
33C	Minnieville loam, 8 to 15 percent slopes	Farmland of statewid
33D	Minnieville loam, 15 to 25 percent slopes	Farmland of statewid
34C	Minnieville-Redbrush complex, 8 to 15 percent slopes	Farmland of statewid
34D	Minnieville-Redbrush complex, 15 to 25 percent slopes	Farmland of statewid
36D	Peaks-Edneyville complex, 15 to 25 percent slopes, very rocky	Farmland of statewid
38C	Penhook-Goblintown complex, 8 to 15 percent slopes	Farmland of statewid
39C	Penhook-Strawfield complex, 8 to 15 percent slopes	Farmland of statewid
39D	Penhook-Strawfield complex, 15 to 25 percent slopes	Farmland of statewid
41C	Saunook loam, 8 to 15 percent slopes	Farmland of statewid
41D	Saunook loam, 15 to 25 percent slopes	Farmland of statewid
42B	Saunook-Thunder complex, 2 to 8 percent slopes, very stony	Farmland of statewid
42C	Saunook-Thunder complex, 8 to 15 percent slopes, very stony	Farmland of statewid
42D	Saunook-Thunder complex, 15 to 25 percent slopes, very stony	Farmland of statewid
43C	Thurmont fine sandy loam, 8 to 15 percent slopes	Farmland of statewid
43D	Thurmont fine sandy loam, 15 to 25 percent slopes	Farmland of statewid
44C	Thurmont cobbly fine sandy loam, 8 to 15 percent slopes, very stony	Farmland of statewid
44D	Thurmont cobbly fine sandy loam, 15 to 25 percent slopes, very stony	Farmland of statewid
45C	Trimont-Kibler complex, 8 to 15 percent slopes	Farmland of statewid
45D	Trimont-Kibler complex, 15 to 25 percent slopes	Farmland of statewid
46B	Trimont-Kibler complex, 2 to 8 percent slopes, very stony	Farmland of statewid
46C	Trimont-Kibler complex, 8 to 15 percent slopes, very stony	Farmland of statewid
46D	Trimont-Kibler complex, 15 to 25 percent slopes, very stony	Farmland of statewid
47C	Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, very stony	Farmland of statewid
47D	Tuckasegee-Cullasaja complex, 15 to 25 percent slopes, very stony	Farmland of statewid
50D	Widgett-Trimont complex, 15 to 25 percent slopes, very rocky	Farmland of statewid
51B	Woolwine-Fairview complex, 2 to 8 percent slopes, stony	Farmland of statewid

Table 6.—Prime and other Important Farmland—Continued

Map symbol	Map unit name	Farmland cl
51C	Woolwine-Fairview complex, 8 to 15 percent slopes, stony	Farmland of statewid
51D	Woolwine-Fairview complex, 15 to 25 percent slopes, stony	Farmland of statewid
27A	French-Dellwood complex, 0 to 4 percent slopes, frequently flooded	Prime farmland if pr or not frequently f growing season

Table 7.—Agricultural Waste Management, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
1D:					
Bellspur------------	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.49	Too acid	0.96
		Large stones content	0.47	Droughty	0.49
Kibler--------------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
1E:					
Bellspur------------	55	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.49	Too acid	0.96
		Large stones content	0.47	Droughty	0.49
Kibler--------------	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
2C:					
Bellspur------------	65	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.96
		Droughty	0.49	Slope	0.63
		Large stones content	0.47	Droughty	0.49
Trimont-------------	20	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32		
3C:					
Bluemount-----------	90	Somewhat limited		Somewhat limited	
		Depth to bedrock	0.90	Depth to bedrock	0.90
		Droughty	0.73	Droughty	0.73
		Slope	0.63	Slope	0.63
3D:					
Bluemount-----------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Depth to bedrock	0.90	Depth to bedrock	0.90
		Droughty	0.73	Droughty	0.73

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
3E:					
Bluemount-----------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Depth to bedrock	0.90	Depth to bedrock	0.90
		Droughty	0.73	Droughty	0.73
4B:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Too acid	0.50	Too acid	0.99
4C:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Too acid	0.50	Slope	0.63
4D:					
Braddock------------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.50	Too acid	0.99
5B:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Too acid	0.50	Too acid	0.99
5C:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Too acid	0.50	Slope	0.63
5D:					
Braddock------------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.50	Too acid	0.99
6F:					
Bugley--------------	70	Very limited		Very limited	
		Too steep	1.00	Droughty	1.00
		Droughty	1.00	Too steep	1.00
		Large stones content	1.00	Depth to bedrock	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	1.00	Too acid	0.99
		Too acid	0.50		
7C:					
Cliffield-----------	55	Very limited		Very limited	
		Droughty	1.00	Droughty	1.00
		Cobble content	1.00	Cobble content	1.00
		Depth to bedrock	0.95	Too acid	1.00
Evard---------------	25	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
7D:					
Cliffield	55	Very limited		Very limited	
		Too steep	1.00	Droughty	1.00
		Droughty	1.00	Too steep	1.00
		Cobble content	1.00	Cobble content	1.00
Evard	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
7E:					
Cliffield	55	Very limited		Very limited	
		Too steep	1.00	Droughty	1.00
		Droughty	1.00	Too steep	1.00
		Cobble content	1.00	Cobble content	1.00
Evard	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
7F:					
Cliffield	65	Very limited		Very limited	
		Too steep	1.00	Droughty	1.00
		Droughty	1.00	Too steep	1.00
		Cobble content	1.00	Cobble content	1.00
Evard	15	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
8B2:					
Clifford	90	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.08	Low adsorption	0.01
8C2:					
Clifford	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
		Low adsorption	0.08	Low adsorption	0.01
9A:					
Colvard	45	Somewhat limited		Very limited	
		Flooding	0.60	Flooding	1.00
		Droughty	0.03	Droughty	0.03
Suches	40	Somewhat limited		Very limited	
		Depth to saturated zone	0.68	Flooding	1.00
		Flooding	0.60	Depth to saturated zone	0.68
		Too acid	0.11	Too acid	0.42
10A:					
Comus	65	Somewhat limited		Very limited	
		Flooding	0.60	Flooding	1.00
		Too acid	0.32	Too acid	0.91
Elsinboro	20	Somewhat limited		Somewhat limited	
		Too acid	0.50	Too acid	0.99
				Flooding	0.40

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
11B:					
Dillard	75	Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Slow water movement	0.30	Flooding	0.40
		Too acid	0.05	Slow water movement	0.22
12C:					
Dillard	85	Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Slope	0.63	Slope	0.63
		Slow water movement	0.30	Slow water movement	0.22
13B:					
Dillard	50	Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Slow water movement	0.30	Flooding	0.40
		Too acid	0.05	Slow water movement	0.22
Tugglesgap	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	0.37	Too acid	0.96
				Flooding	0.40
14C:					
Dillard	50	Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Slope	0.63	Slope	0.63
		Slow water movement	0.30	Slow water movement	0.22
Tugglesgap	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.63	Too acid	0.96
		Too acid	0.37	Slope	0.63
15B:					
Dillsboro	90	Somewhat limited		Very limited	
		Too acid	0.68	Too acid	1.00
		Large stones content	0.47	Flooding	0.40
16C:					
Dillsboro	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Too acid	0.43	Slope	0.63
17B:					
Evard	70	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
17B:					
Cowee	20	Somewhat limited		Very limited	
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
		Depth to bedrock	0.46	Depth to bedrock	0.46
17C:					
Evard	70	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
Cowee	20	Somewhat limited		Very limited	
		Slope	0.63	Too acid	1.00
		Too acid	0.62	Slope	0.63
		Droughty	0.50	Droughty	0.50
17D:					
Evard	65	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
Cowee	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
17E:					
Evard	55	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
Cowee	35	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
18B:					
Evard	70	Somewhat limited		Somewhat limited	
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Cowee	20	Somewhat limited		Very limited	
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
		Large stones content	0.47	Depth to bedrock	0.46
18C:					
Evard	55	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32		
Cowee	35	Somewhat limited		Very limited	
		Slope	0.63	Too acid	1.00
		Too acid	0.62	Slope	0.63
		Droughty	0.50	Droughty	0.50

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
18D:					
Evard	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Cowee	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
18E:					
Evard	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Cowee	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.62	Too acid	1.00
		Droughty	0.50	Droughty	0.50
19B2:					
Fairview	90	Somewhat limited		Somewhat limited	
		Low adsorption	0.52	Low adsorption	0.39
		Too acid	0.05	Too acid	0.21
19C2:					
Fairview	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63
		Low adsorption	0.52	Low adsorption	0.39
		Too acid	0.05	Too acid	0.21
19D2:					
Fairview	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Low adsorption	0.52	Low adsorption	0.39
		Too acid	0.05	Too acid	0.21
20B:					
Fairview	90	Somewhat limited		Somewhat limited	
		Cobble content	0.50	Too acid	0.91
		Large stones content	0.47	Cobble content	0.50
		Too acid	0.32		
20C:					
Fairview	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Cobble content	0.50	Slope	0.63
		Large stones content	0.47	Cobble content	0.50

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
20D:					
Fairview	85	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.50	Too acid	0.91
		Large stones content	0.47	Cobble content	0.50
21E:					
Fairview	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.16		
Stott Knob	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Droughty	0.09	Droughty	0.09
22E:					
Fairview	75	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.50	Too acid	0.91
		Large stones content	0.47	Cobble content	0.50
Stott Knob	15	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.50	Too acid	0.91
		Large stones content	0.47	Cobble content	0.50
23C:					
Fairystone	75	Somewhat limited		Very limited	
		Depth to bedrock	0.90	Too acid	1.00
		Too acid	0.78	Depth to bedrock	0.90
		Droughty	0.71	Droughty	0.71
Littlejoe	20	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Too acid	0.50	Slope	0.63
24D:					
Fairystone	75	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Depth to bedrock	0.90	Too acid	1.00
		Too acid	0.78	Depth to bedrock	0.90
Littlejoe	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.50	Too acid	0.99
25E:					
Fairystone	70	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	1.00	Too acid	1.00
		Depth to bedrock	0.90	Depth to bedrock	0.90

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
25E:					
Littlejoe	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	1.00	Too acid	0.99
		Too acid	0.50		
26A:					
French	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	0.99	Flooding	1.00
		Flooding	0.60	Filtering capacity	0.99
27A:					
French	55	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00
		Filtering capacity	0.99	Filtering capacity	0.99
Dellwood	40	Very limited		Very limited	
		Droughty	1.00	Flooding	1.00
		Filtering capacity	0.99	Droughty	1.00
		Depth to saturated zone	0.80	Filtering capacity	0.99
28D:					
Goblintown	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.20	Low adsorption	0.05
Penhook	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.78	Too acid	1.00
28E:					
Goblintown	55	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.20	Low adsorption	0.05
Penhook	35	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.78	Too acid	1.00
29A:					
Hatboro	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
30F:					
Hickoryknob----------	70	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.96	Too acid	1.00
		Depth to bedrock	0.95	Droughty	0.96
Rhodhiss------------	15	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
31C:					
Meadowfield----------	60	Very limited		Very limited	
		Droughty	1.00	Droughty	1.00
		Too acid	0.78	Too acid	1.00
		Depth to bedrock	0.65	Depth to bedrock	0.65
Stott Knob-----------	30	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32	Droughty	0.09
31D:					
Meadowfield----------	65	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Too acid	0.78	Too acid	1.00
Stott Knob-----------	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32	Droughty	0.09
32E:					
Meadowfield----------	65	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Too acid	0.78	Too acid	1.00
Stott Knob-----------	15	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32	Droughty	0.09
32F:					
Meadowfield----------	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Too acid	0.78	Too acid	1.00
Stott Knob-----------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32	Droughty	0.09

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
33B:					
Minnieville---------	90	Somewhat limited		Somewhat limited	
		Low adsorption	0.70	Too acid	0.67
		Too acid	0.18	Low adsorption	0.52
33C:					
Minnieville---------	90	Somewhat limited		Somewhat limited	
		Low adsorption	0.70	Too acid	0.67
		Slope	0.63	Slope	0.63
		Too acid	0.18	Low adsorption	0.52
33D:					
Minnieville---------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Low adsorption	0.70	Too acid	0.67
		Too acid	0.18	Low adsorption	0.52
33E:					
Minnieville---------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Low adsorption	0.70	Too acid	0.67
		Too acid	0.18	Low adsorption	0.52
34B:					
Minnieville---------	65	Somewhat limited		Somewhat limited	
		Low adsorption	0.70	Too acid	0.67
		Too acid	0.18	Low adsorption	0.52
Redbrush------------	35	Somewhat limited		Somewhat limited	
		Slow water movement	0.89	Droughty	0.87
		Droughty	0.87	Slow water movement	0.78
		Depth to bedrock	0.46	Depth to bedrock	0.46
34C:					
Minnieville---------	60	Somewhat limited		Somewhat limited	
		Low adsorption	0.70	Too acid	0.67
		Slope	0.63	Slope	0.63
		Too acid	0.18	Low adsorption	0.52
Redbrush------------	40	Somewhat limited		Somewhat limited	
		Slow water movement	0.89	Droughty	0.87
		Droughty	0.87	Slow water movement	0.78
		Slope	0.63	Slope	0.63
34D:					
Minnieville---------	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Low adsorption	0.70	Too acid	0.67
		Too acid	0.18	Low adsorption	0.52
Redbrush------------	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Slow water movement	0.89	Droughty	0.87
		Droughty	0.87	Slow water movement	0.78

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
35A:					
Nikwasi	55	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00
Dellwood	35	Very limited		Very limited	
		Droughty	1.00	Flooding	1.00
		Filtering capacity	0.99	Droughty	1.00
		Depth to saturated zone	0.80	Filtering capacity	0.99
36D:					
Peaks	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Filtering capacity	0.99	Filtering capacity	0.99
Edneyville	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
36E:					
Peaks	65	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Filtering capacity	0.99	Filtering capacity	0.99
Edneyville	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
37F:					
Peaks	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	1.00	Droughty	1.00
		Filtering capacity	0.99	Filtering capacity	0.99
Rock outcrop	30	Not rated		Not rated	
38C:					
Penhook	55	Somewhat limited		Very limited	
		Too acid	0.78	Too acid	1.00
		Slope	0.63	Slope	0.63
Goblintown	35	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
		Low adsorption	0.20	Low adsorption	0.05

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
39C:					
Penhook	65	Somewhat limited		Very limited	
		Too acid	0.78	Too acid	1.00
		Slope	0.63	Slope	0.63
Strawfield	30	Somewhat limited		Very limited	
		Depth to bedrock	0.97	Too acid	1.00
		Droughty	0.86	Depth to bedrock	0.97
		Too acid	0.78	Droughty	0.86
39D:					
Penhook	65	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.78	Too acid	1.00
Strawfield	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Depth to bedrock	0.97	Too acid	1.00
		Droughty	0.86	Depth to bedrock	0.97
39E:					
Penhook	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.78	Too acid	1.00
Strawfield	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Depth to bedrock	0.97	Too acid	1.00
		Droughty	0.86	Depth to bedrock	0.97
40E:					
Rhodhiss	75	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
Stott Knob	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Droughty	0.09	Droughty	0.09
41B:					
Saunook	85	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91
41C:					
Saunook	85	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
41D:					
Saunook	85	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
42B:					
Saunook	60	Somewhat limited		Somewhat limited	
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
42B:					
Thunder-------------	30	Very limited		Very limited	
		Cobble content	1.00	Cobble content	1.00
		Droughty	0.65	Droughty	0.65
		Large stones content	0.47	Too acid	0.42
42C:					
Saunook-------------	55	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32		
Thunder-------------	35	Very limited		Very limited	
		Cobble content	1.00	Cobble content	1.00
		Droughty	0.65	Droughty	0.65
		Slope	0.63	Slope	0.63
42D:					
Saunook-------------	55	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Thunder-------------	35	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	1.00	Cobble content	1.00
		Droughty	0.65	Droughty	0.65
43B:					
Thurmont------------	90	Somewhat limited		Somewhat limited	
		Too acid	0.50	Too acid	0.99
43C:					
Thurmont------------	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Too acid	0.50	Slope	0.63
43D:					
Thurmont------------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.50	Too acid	0.99
44C:					
Thurmont------------	90	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.99
		Cobble content	0.50	Slope	0.63
		Too acid	0.50	Cobble content	0.50
44D:					
Thurmont------------	90	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.50	Too acid	0.99
		Too acid	0.50	Cobble content	0.50

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
45B:					
Trimont	60	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91
Kibler	30	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91
45C:					
Trimont	55	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
Kibler	35	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
45D:					
Trimont	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
Kibler	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
45E:					
Trimont	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
Kibler	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
46B:					
Trimont	60	Somewhat limited		Somewhat limited	
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Kibler	30	Somewhat limited		Somewhat limited	
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
46C:					
Trimont	55	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32		
Kibler	35	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
		Too acid	0.32		

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
46D:					
Trimont-------------	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Kibler--------------	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
46E:					
Trimont-------------	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
Kibler--------------	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
47C:					
Tuckasegee----------	45	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Cobble content	0.59	Slope	0.63
		Large stones content	0.47	Cobble content	0.59
Cullasaja-----------	40	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Large stones content	0.47	Slope	0.63
				Droughty	0.06
		Too acid	0.32		
47D:					
Tuckasegee----------	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.59	Too acid	0.91
		Large stones content	0.47	Cobble content	0.59
Cullasaja-----------	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
				Droughty	0.06
		Too acid	0.32		
47E:					
Tuckasegee----------	45	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Cobble content	0.59	Too acid	0.91
		Large stones content	0.47	Cobble content	0.59

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
47E:					
Cullasaja-----------	40	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32	Droughty	0.06
48:					
Udorthents----------	90	Not rated		Not rated	
49F:					
Widgett-------------	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.99	Too acid	1.00
		Cobble content	0.87	Droughty	0.99
Kibler--------------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
50D:					
Widgett-------------	60	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.99	Too acid	1.00
		Cobble content	0.87	Droughty	0.99
Trimont-------------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
50E:					
Widgett-------------	55	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.99	Too acid	1.00
		Cobble content	0.87	Droughty	0.99
Trimont-------------	25	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		
50F:					
Widgett-------------	50	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.99	Too acid	1.00
		Cobble content	0.87	Droughty	0.99
Trimont-------------	20	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Large stones content	0.47	Too acid	0.91
		Too acid	0.32		

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
51B:					
Woolwine------------	70	Somewhat limited		Very limited	
		Droughty	0.84	Too acid	1.00
		Depth to bedrock	0.65	Droughty	0.84
		Too acid	0.62	Depth to bedrock	0.65
Fairview------------	30	Somewhat limited		Somewhat limited	
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.16		
51C:					
Woolwine------------	70	Somewhat limited		Very limited	
		Droughty	0.84	Too acid	1.00
		Depth to bedrock	0.65	Droughty	0.84
		Slope	0.63	Depth to bedrock	0.65
Fairview------------	30	Somewhat limited		Somewhat limited	
		Slope	0.63	Too acid	0.91
		Too acid	0.32	Slope	0.63
		Low adsorption	0.16		
51D:					
Woolwine------------	70	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.84	Too acid	1.00
		Depth to bedrock	0.65	Droughty	0.84
Fairview------------	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.16		
51E:					
Woolwine------------	70	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Droughty	0.84	Too acid	1.00
		Depth to bedrock	0.65	Droughty	0.84
Fairview------------	30	Very limited		Very limited	
		Too steep	1.00	Too steep	1.00
		Too acid	0.32	Too acid	0.91
		Low adsorption	0.16		
W:					
Water---------------	100	Not rated		Not rated	

Table 7.—Agricultural Waste Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
1D:					
Bellspur	60	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
				Depth to bedrock	1.00
		Too acid	0.96		
Kibler	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.91
		Too acid	0.91		
1E:					
Bellspur	55	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
				Depth to bedrock	1.00
		Too acid	0.96		
Kibler	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.91
		Too acid	0.91		
2C:					
Bellspur	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Depth to bedrock	1.00
				Too steep for surface application	1.00
		Too acid	0.96		
		Too steep for sprinkler application	0.78		

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
2C:					
Trimont	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
3C:					
Bluemount	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Depth to bedrock	0.90	Depth to bedrock	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
3D:					
Bluemount	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Depth to bedrock	0.90	Depth to bedrock	1.00
3E:					
Bluemount	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Depth to bedrock	0.90	Depth to bedrock	1.00
4B:					
Braddock	90	Somewhat limited		Very limited	
		Too acid	0.99	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.99
4C:					
Braddock	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
4D:					
Braddock	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.99	Too acid	0.99
5B:					
Braddock	90	Somewhat limited		Very limited	
		Too acid	0.99	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.99
5C:					
Braddock	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99
5D:					
Braddock	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.99	Too acid	0.99
6F:					
Bugley	70	Very limited		Very limited	
		Droughty	1.00	Seepage	1.00
		Too steep for surface application	1.00	Depth to bedrock	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
Littlejoe	20	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.99	Too acid	0.99

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
7C:					
Cliffield-----------	55	Very limited		Very limited	
		Droughty	1.00	Seepage	1.00
		Too steep for surface application	1.00	Depth to bedrock	1.00
				Too acid	1.00
		Cobble content	1.00		
Evard---------------	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too acid	0.91		
		Too steep for sprinkler application	0.78	Too acid	0.91
7D:					
Cliffield-----------	55	Very limited		Very limited	
		Droughty	1.00	Seepage	1.00
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
Evard---------------	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.91
		Too acid	0.91		
7E:					
Cliffield-----------	55	Very limited		Very limited	
		Droughty	1.00	Seepage	1.00
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
Evard---------------	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.91
		Too acid	0.91		

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
7F:					
Cliffield	65	Very limited		Very limited	
		Droughty	1.00	Seepage	1.00
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
Evard	15	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
8B2:					
Clifford	90	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
		Low adsorption	0.08	Low adsorption	0.08
8C2:					
Clifford	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
9A:					
Colvard	45	Somewhat limited		Very limited	
		Flooding	0.60	Flooding	1.00
		Droughty	0.03	Seepage	1.00
Suches	40	Somewhat limited		Very limited	
		Depth to saturated zone	0.68	Flooding	1.00
		Flooding	0.60	Seepage	1.00
		Too acid	0.42	Depth to saturated zone	0.68
10A:					
Comus	65	Somewhat limited		Very limited	
		Too acid	0.91	Flooding	1.00
		Flooding	0.60	Seepage	1.00
				Too acid	0.91
Elsinboro	20	Somewhat limited		Very limited	
		Too acid	0.99	Seepage	1.00
				Too acid	0.99
				Flooding	0.40

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
11B:					
Dillard	75	Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Seepage	1.00
		Too steep for surface application	0.32	Depth to saturated zone	0.86
		Slow water movement	0.22	Flooding	0.40
12C:					
Dillard	85	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Depth to saturated zone	0.86	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Depth to saturated zone	1.00
					0.96
13B:					
Dillard	50	Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Seepage	1.00
		Too steep for surface application	0.32	Depth to saturated zone	0.86
		Slow water movement	0.22	Flooding	0.40
Tugglesgap	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too acid	0.96	Depth to saturated zone	1.00
		Too steep for surface application	0.32	Too acid	0.96
14C:					
Dillard	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Depth to saturated zone	0.86	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Depth to saturated zone	0.86
Tugglesgap	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too steep for surface application	1.00	Depth to saturated zone	1.00
		Too acid	0.96	Too steep for surface application	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
15B:					
Dillsboro	90	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Too steep for surface application	0.32	Too acid	1.00
				Flooding	0.40
16C:					
Dillsboro	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99
17B:					
Evard	70	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
Cowee	20	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Droughty	0.50	Depth to bedrock	1.00
		Depth to bedrock	0.46	Too acid	1.00
17C:					
Evard	70	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Cowee	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
17D:					
Evard	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
17D:					
Cowee	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
17E:					
Evard	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Cowee	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
18B:					
Evard	70	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
Cowee	20	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Droughty	0.50	Depth to bedrock	1.00
		Depth to bedrock	0.46	Too acid	1.00
18C:					
Evard	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Cowee	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
18D:					
Evard	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Cowee	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
18E:					
Evard	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Cowee	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
19B2:					
Fairview	90	Somewhat limited		Very limited	
		Low adsorption	0.52	Seepage	1.00
		Too steep for surface application	0.32	Low adsorption	0.52
		Too acid	0.21	Too acid	0.21
19C2:					
Fairview	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
		Low adsorption	0.52	Low adsorption	0.52

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
19D2:					
Fairview-----------	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Low adsorption	0.52	Low adsorption	0.52
20B:					
Fairview-----------	90	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Cobble content	0.50	Too acid	0.91
		Too steep for surface application	0.32	Low adsorption	0.16
20C:					
Fairview-----------	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
20D:					
Fairview-----------	85	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
21E:					
Fairview-----------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Stott Knob----------	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Depth to bedrock	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
22E:					
Fairview-----------	75	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Stott Knob----------	15	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Depth to bedrock	1.00
23C:					
Fairystone----------	75	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	0.90	Too acid	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99
24D:					
Fairystone----------	75	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.99	Too acid	0.99

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
25E:					
Fairystone	70	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
Littlejoe	20	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.99	Too acid	0.99
26A:					
French	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Filtering capacity	0.99	Depth to saturated zone	1.00
		Too acid	0.77	Seepage	1.00
27A:					
French	55	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Filtering capacity	0.99	Seepage	1.00
Dellwood	40	Very limited		Very limited	
		Droughty	1.00	Flooding	1.00
		Filtering capacity	0.99	Seepage	1.00
		Too acid	0.91	Too acid	0.91
28D:					
Goblintown	45	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Depth to bedrock	1.00
Penhook	45	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Too acid	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
28E:					
Goblintown----------	55	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
				Depth to bedrock	1.00
		Too acid	0.91		
Penhook-------------	35	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
				Too acid	1.00
		Too acid	1.00		
29A:					
Hatboro-------------	85	Very limited		Very limited	
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Ponding	1.00
				Depth to saturated zone	1.00
		Flooding	1.00		
30F:					
Hickoryknob---------	70	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Too acid	1.00		
Rhodhiss------------	15	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.91
		Too acid	0.91		
31C:					
Meadowfield---------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Depth to bedrock	1.00
		Droughty	1.00	Too steep for surface application	1.00
		Too acid	1.00		

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
31C:					
Stott Knob----------	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Depth to bedrock	1.00
				Too steep for surface application	1.00
		Too acid	0.91		
		Too steep for sprinkler application	0.78		
31D:					
Meadowfield---------	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Droughty	1.00		
Stott Knob----------	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Too acid	0.91		
32E:					
Meadowfield---------	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Droughty	1.00		
Stott Knob----------	15	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Too acid	0.91		
32F:					
Meadowfield---------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
				Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Depth to bedrock	1.00
		Droughty	1.00		

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
32F:					
Stott Knob----------	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Depth to bedrock	1.00
33B:					
Minnieville---------	90	Somewhat limited		Very limited	
		Low adsorption	0.70	Seepage	1.00
		Too acid	0.67	Low adsorption	0.70
		Too steep for surface application	0.32	Too acid	0.67
33C:					
Minnieville---------	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
		Low adsorption	0.70	Low adsorption	0.70
33D:					
Minnieville---------	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Low adsorption	0.70	Low adsorption	0.70
33E:					
Minnieville---------	90	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Low adsorption	0.70	Low adsorption	0.70
34B:					
Minnieville---------	65	Somewhat limited		Very limited	
		Low adsorption	0.70	Seepage	1.00
		Too acid	0.67	Low adsorption	0.70
		Too steep for surface application	0.32	Too acid	0.67

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
34B:					
Redbrush-----------	35	Somewhat limited		Very limited	
		Droughty	0.87	Seepage	1.00
		Slow water movement	0.78	Depth to bedrock	1.00
		Depth to bedrock	0.46		
34C:					
Minnieville---------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
		Low adsorption	0.70	Low adsorption	0.70
Redbrush-----------	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Droughty	0.87	Depth to bedrock	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
34D:					
Minnieville---------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Low adsorption	0.70	Low adsorption	0.70
Redbrush-----------	40	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Droughty	0.87	Depth to bedrock	1.00
35A:					
Nikwasi------------	55	Very limited		Very limited	
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	1.00	Ponding	1.00
Dellwood-----------	35	Very limited		Very limited	
		Droughty	1.00	Flooding	1.00
		Filtering capacity	0.99	Seepage	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
36D:					
Peaks	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Droughty	1.00	Depth to bedrock	1.00
Edneyville	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
36E:					
Peaks	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Droughty	1.00	Depth to bedrock	1.00
Edneyville	25	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
37F:					
Peaks	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Droughty	1.00	Depth to bedrock	1.00
Rock outcrop	30	Not rated		Not rated	
38C:					
Penhook	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Too acid	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
38C:					
Goblintown----------	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Depth to bedrock	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
39C:					
Penhook-------------	65	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Too acid	1.00
		Too steep for sprinkler application	0.78	Too steep for surface application	1.00
Strawfield----------	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
		Depth to bedrock	0.97	Too acid	1.00
39D:					
Penhook-------------	65	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Too acid	1.00
Strawfield----------	30	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
39E:					
Penhook-------------	60	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Too acid	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
39E:					
Strawfield	30	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
40E:					
Rhodhiss	75	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Stott Knob	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Depth to bedrock	1.00
41B:					
Saunook	85	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
41C:					
Saunook	85	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
41D:					
Saunook	85	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
42B:					
Saunook	60	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
Thunder	30	Very limited		Very limited	
		Cobble content	1.00	Seepage	1.00
		Droughty	0.65	Stone content	1.00
		Too acid	0.42	Cobble content	1.00
42C:					
Saunook	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Thunder	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Cobble content	1.00	Stone content	1.00
		Too steep for sprinkler application	0.78	Cobble content	1.00
42D:					
Saunook	55	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
Thunder	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Cobble content	1.00	Stone content	1.00
43B:					
Thurmont	90	Somewhat limited		Very limited	
		Too acid	0.99	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.99

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
43C:					
Thurmont	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99
43D:					
Thurmont	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.99	Too acid	0.99
44C:					
Thurmont	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.99	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.99
44D:					
Thurmont	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.99	Too acid	0.99
45B:					
Trimont	60	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
Kibler	30	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
				Depth to bedrock	0.14

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
45C:					
Trimont	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Kibler	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
45D:					
Trimont	50	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
Kibler	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
45E:					
Trimont	45	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
Kibler	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
46B:					
Trimont-------------	60	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
Kibler--------------	30	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
				Depth to bedrock	0.14
46C:					
Trimont-------------	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Kibler--------------	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
46D:					
Trimont-------------	50	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
Kibler--------------	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
46E:					
Trimont-------------	45	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
46E:					
Kibler	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
47C:					
Tuckasegee	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
Cullasaja	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91
47D:					
Tuckasegee	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
Cullasaja	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
47E:					
Tuckasegee	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
47E:					
Cullasaja	40	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
48:					
Udorthents	90	Not rated		Not rated	
49F:					
Widgett	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
Kibler	20	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
50D:					
Widgett	60	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
Trimont	20	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
50E:					
Widgett	55	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
50E:					
Trimont-------------	25	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
50F:					
Widgett-------------	50	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
Trimont-------------	20	Very limited		Very limited	
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
51B:					
Woolwine------------	70	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Droughty	0.84	Depth to bedrock	1.00
		Depth to bedrock	0.65	Too acid	1.00
Fairview------------	30	Somewhat limited		Very limited	
		Too acid	0.91	Seepage	1.00
		Too steep for surface application	0.32	Too acid	0.91
		Low adsorption	0.16	Low adsorption	0.16
51C:					
Woolwine------------	70	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	1.00	Depth to bedrock	1.00
		Droughty	0.84	Too steep for surface application	1.00
Fairview------------	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too acid	0.91	Too steep for surface application	1.00
		Too steep for sprinkler application	0.78	Too acid	0.91

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
51D:					
Woolwine	70	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
Fairview	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
51E:					
Woolwine	70	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	1.00	Depth to bedrock	1.00
Fairview	30	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.91	Too acid	0.91
W:					
Water	100	Not rated		Not rated	

Table 7.—Agricultural Waste Management, Part III

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
1D:					
Bellspur	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Kibler	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
1E:					
Bellspur	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Kibler	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
2C:					
Bellspur	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
2C:					
Trimont	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
3C:					
Bluemount	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
3D:					
Bluemount	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
3E:					
Bluemount	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
4B:					
Braddock	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.99
		Slope	0.12	Too steep for surface application	0.32
4C:					
Braddock	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
4D:					
Braddock	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
5B:					
Braddock	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.99
		Slope	0.12	Too steep for surface application	0.32
5C:					
Braddock	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
5D:					
Braddock	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
6F:					
Bugley	70	Very limited		Very limited	
		Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Too steep for surface application	1.00
		Slow water movement	0.32	Too steep for sprinkler irrigation	1.00
Littlejoe	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.99

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
7C:					
Cliffield	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Cobble content	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Evard	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
7D:					
Cliffield	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Cobble content	1.00
Evard	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
7E:					
Cliffield	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Cobble content	1.00
Evard	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
7F:					
Cliffield	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Cobble content	1.00
Evard	15	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
8B2:					
Clifford	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
				Low adsorption	0.08
8C2:					
Clifford	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
9A:					
Colvard	45	Somewhat limited		Somewhat limited	
		Flooding	0.60	Flooding	0.60
		Slow water movement	0.32		
Suches	40	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.68
		Slow water movement	1.00	Flooding	0.60
		Flooding	0.60	Too acid	0.42
10A:					
Comus	65	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Flooding	0.60	Flooding	0.60
Elsinboro	20	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.99

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
11B:					
Dillard	75	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	1.00	Too steep for surface application	0.32
		Too acid	0.14	Too acid	0.21
12C:					
Dillard	85	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00		
		Depth to saturated zone	1.00	Too steep for sprinkler irrigation	1.00
				Depth to saturated zone	0.86
13B:					
Dillard	50	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	1.00	Too steep for surface application	0.32
		Too acid	0.14	Too acid	0.21
Tugglesgap	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	0.96
				Too steep for surface application	0.32
		Slope	0.12		
14C:					
Dillard	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00		
		Depth to saturated zone	1.00	Too steep for sprinkler irrigation	1.00
				Depth to saturated zone	0.86
Tugglesgap	30	Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00		
				Too steep for surface application	1.00
		Slow water movement	1.00		
				Too steep for sprinkler irrigation	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
15B:					
Dillsboro-----------	90	Very limited		Very limited	
		Slow water movement	1.00	Too acid	1.00
		Slope	0.12	Too steep for surface application	0.32
16C:					
Dillsboro-----------	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
17B:					
Evard---------------	70	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
Cowee---------------	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too acid	1.00
		Slope	0.12	Too steep for surface application	0.32
17C:					
Evard---------------	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Cowee---------------	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
17D:					
Evard---------------	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
17D:					
Cowee---------------	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
17E:					
Evard---------------	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Cowee---------------	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
18B:					
Evard---------------	70	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
Cowee---------------	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too acid	1.00
		Slope	0.12	Too steep for surface application	0.32
18C:					
Evard---------------	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Cowee---------------	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
18D:					
Evard	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Cowee	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
18E:					
Evard	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Cowee	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
19B2:					
Fairview	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Low adsorption	0.52
		Slope	0.12	Too steep for surface application	0.32
				Too acid	0.21
19C2:					
Fairview	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.52

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
19D2:					
Fairview	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.52
20B:					
Fairview	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
				Cobble content	0.50
		Slope	0.12	Too steep for surface application	0.32
20C:					
Fairview	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
20D:					
Fairview	85	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
21E:					
Fairview	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Stott Knob	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
22E:					
Fairview	75	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Stott Knob	15	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
23C:					
Fairystone	75	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too acid	1.00
Littlejoe	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.99
24D:					
Fairystone	75	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Littlejoe	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.99

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
25E:					
Fairystone	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Littlejoe	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.99
26A:					
French	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.62	Filtering capacity	0.99
		Flooding	0.60	Too acid	0.77
27A:					
French	55	Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
		Slow water movement	0.62	Filtering capacity	0.99
Dellwood	40	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Cobble content	0.84	Too acid	0.91
		Flooding	0.60	Depth to saturated zone	0.80
28D:					
Goblintown	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Penhook	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Too acid	0.21	Too acid	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
28E:					
Goblintown----------	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Penhook-------------	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Too acid	0.21	Too acid	1.00
29A:					
Hatboro-------------	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Deph to saturated zone	1.00	Flooding	1.00
30F:					
Hickoryknob---------	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Rhodhiss------------	15	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
31C:					
Meadowfield---------	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
31C:					
Stott Knob----------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
31D:					
Meadowfield---------	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Stott Knob----------	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
32E:					
Meadowfield---------	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Stott Knob----------	15	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
32F:					
Meadowfield---------	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
32F:					
Stott Knob----------	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
33B:					
Minnieville---------	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Low adsorption	0.70
		Slope	0.12	Too acid	0.67
				Too steep for surface application	0.32
33C:					
Minnieville---------	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.70
33D:					
Minnieville---------	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.70
33E:					
Minnieville---------	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.70
34B:					
Minnieville---------	65	Very limited		Somewhat limited	
		Slow water movement	1.00	Low adsorption	0.70
		Slope	0.12	Too acid	0.67
				Too steep for surface application	0.32

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
34B:					
Redbrush-----------	35	Very limited		Very limited	
		Slow water movement	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Slow water movement	0.60
		Slope	0.12	Too steep for surface application	0.32
34C:					
Minnieville---------	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.70
Redbrush-----------	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
34D:					
Minnieville---------	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Low adsorption	0.70
Redbrush-----------	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
35A:					
Nikwasi------------	55	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
Dellwood-----------	35	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Cobble content	0.84	Too acid	0.91
		Flooding	0.60	Depth to saturated zone	0.80

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
36D:					
Peaks	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	0.97	Depth to bedrock	1.00
Edneyville	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	0.32	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
36E:					
Peaks	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	0.97	Depth to bedrock	1.00
Edneyville	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	0.32	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
37F:					
Peaks	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	0.97	Depth to bedrock	1.00
Rock outcrop	30	Not rated		Not rated	
38C:					
Penhook	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.21	Too steep for sprinkler irrigation	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
38C:					
Goblintown----------	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
39C:					
Penhook-------------	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.21	Too steep for sprinkler irrigation	1.00
Strawfield----------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too acid	1.00
39D:					
Penhook-------------	65	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Too acid	0.21	Too acid	1.00
Strawfield----------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
39E:					
Penhook-------------	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Too acid	0.21	Too acid	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
39E:					
Strawfield----------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
40E:					
Rhodhiss------------	75	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Stott Knob----------	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
41B:					
Saunook-------------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
41C:					
Saunook-------------	85	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
41D:					
Saunook-------------	85	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
42B:					
Saunook	60	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
Thunder	30	Very limited		Very limited	
		Stone content	1.00	Cobble content	1.00
		Cobble content	1.00	Too acid	0.42
		Slow water movement	0.32	Too steep for surface application	0.32
42C:					
Saunook	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Thunder	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Stone content	1.00	Cobble content	1.00
		Cobble content	1.00	Too steep for sprinkler irrigation	1.00
42D:					
Saunook	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Thunder	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Stone content	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	1.00	Cobble content	1.00
43B:					
Thurmont	90	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Too acid	0.99
		Slow water movement	1.00	Too steep for surface application	0.32
		Slope	0.12		

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
43C:					
Thurmont	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00		
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
43D:					
Thurmont	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00		
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
44C:					
Thurmont	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00		
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
44D:					
Thurmont	90	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00		
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.99
45B:					
Trimont	60	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
Kibler	30	Very limited		Somewhat limited	
		Depth to bedrock	1.00	Too acid	0.91
		Slow water movement	1.00	Too steep for surface application	0.32
		Slope	0.12	Depth to bedrock	0.14

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
45C:					
Trimont	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Kibler	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
45D:					
Trimont	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Kibler	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
45E:					
Trimont	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Kibler	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
46B:					
Trimont	60	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
Kibler	30	Very limited		Somewhat limited	
		Depth to bedrock	1.00	Too acid	0.91
		Slow water movement	1.00	Too steep for surface application	0.32
		Slope	0.12	Depth to bedrock	0.14
46C:					
Trimont	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Kibler	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
46D:					
Trimont	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
Kibler	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
46E:					
Trimont	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
46E:					
Kibler	45	Very limited Slope Depth to bedrock Slow water movement	 1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91
47C:					
Tuckasegee	45	Very limited Slope Slow water movement Cobble content	 1.00 0.62 0.07	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91
Cullasaja	40	Very limited Slope Slow water movement	 1.00 0.32	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91
47D:					
Tuckasegee	45	Very limited Slope Slow water movement Cobble content	 1.00 0.62 0.07	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91
Cullasaja	40	Very limited Slope Slow water movement	 1.00 0.32	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91
47E:					
Tuckasegee	45	Very limited Slope Slow water movement Cobble content	 1.00 0.62 0.07	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	 1.00 1.00 0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
47E:					
Cullasaja	40	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	0.32	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
48:					
Udorthents	90	Not rated		Not rated	
49F:					
Widgett	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	1.00	Depth to bedrock	1.00
Kibler	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Too acid	0.91
50D:					
Widgett	60	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	1.00	Depth to bedrock	1.00
Trimont	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
50E:					
Widgett	55	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	1.00	Depth to bedrock	1.00

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
50E:					
Trimont	25	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
50F:					
Widgett	50	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Cobble content	1.00	Depth to bedrock	1.00
Trimont	20	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
51B:					
Woolwine	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too acid	1.00
		Slope	0.12	Low adsorption	0.56
Fairview	30	Very limited		Somewhat limited	
		Slow water movement	1.00	Too acid	0.91
		Slope	0.12	Too steep for surface application	0.32
				Low adsorption	0.16
51C:					
Woolwine	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
Fairview	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
51D:					
Woolwine------------	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Fairview------------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
51E:					
Woolwine------------	70	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Depth to bedrock	1.00	Too steep for sprinkler irrigation	1.00
		Slow water movement	1.00	Depth to bedrock	1.00
Fairview------------	30	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Too acid	0.91
W:					
Water---------------	100	Not rated		Not rated	

Table 8.—Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
1D:				
Bellspur	eastern white pine	89	164	eastern white pine,
	northern red oak	96	77	shortleaf pine,
	yellow-poplar	102	110	yellow-poplar
Kibler	eastern white pine	89	164	eastern white pine,
	northern red oak	85	67	shortleaf pine,
	yellow-poplar	96	100	yellow-poplar
1E:				
Bellspur	eastern white pine	86	157	eastern white pine,
	northern red oak	93	74	shortleaf pine,
	yellow-poplar	99	105	yellow-poplar
Kibler	eastern white pine	86	157	eastern white pine,
	northern red oak	82	64	shortleaf pine,
	yellow-poplar	93	95	yellow-poplar
2C:				
Bellspur	eastern white pine	92	170	eastern white pine,
	northern red oak	99	81	shortleaf pine,
	yellow-poplar	105	115	yellow-poplar
Trimont	eastern white pine	87	159	eastern white pine,
	northern red oak	94	75	shortleaf pine,
	yellow-poplar	100	107	yellow-poplar
3C:				
Bluemount	loblolly pine	73	98	eastern white pine,
	northern red oak	63	46	loblolly pine,
	Virginia pine	63	96	Virginia pine
	yellow-poplar	73	59	
3D:				
Bluemount	loblolly pine	70	93	eastern white pine,
	northern red oak	60	43	loblolly pine,
	Virginia pine	60	91	Virginia pine
	yellow-poplar	70	54	
3E:				
Bluemount	loblolly pine	67	88	eastern white pine,
	northern red oak	57	40	loblolly pine,
	Virginia pine	57	84	Virginia pine
	yellow-poplar	67	49	
4B:				
Braddock	eastern white pine	96	178	eastern white pine,
	shortleaf pine	74	118	shortleaf pine,
	yellow-poplar	92	93	yellow-poplar
4C:				
Braddock	eastern white pine	93	172	eastern white pine,
	shortleaf pine	71	112	shortleaf pine,
	yellow-poplar	89	88	yellow-poplar
4D:				
Braddock	eastern white pine	90	166	eastern white pine,
	shortleaf pine	68	106	shortleaf pine,
	yellow-poplar	86	82	yellow-poplar

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
5B:				
Braddock	eastern white pine	96	178	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	74	118	
	yellow-poplar	92	93	
5C:				
Braddock	eastern white pine	93	172	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	71	112	
	yellow-poplar	89	88	
5D:				
Braddock	eastern white pine	90	166	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	68	106	
	yellow-poplar	86	82	
6F:				
Bugley	chestnut oak	60	43	loblolly pine, shortleaf pine
	loblolly pine	70	93	
	shortleaf pine	60	88	
	Virginia pine	65	100	
Littlejoe	chestnut oak	64	47	eastern white pine, loblolly pine, Virginia pine
	loblolly pine	84	118	
	northern red oak	75	57	
	Virginia pine	65	100	
	white oak	73	55	
	yellow-poplar	78	68	
7C:				
Cliffield	chestnut oak	50	34	eastern white pine, shortleaf pine
	eastern white pine	85	155	
	Virginia pine	75	115	
	white oak	75	57	
	yellow-poplar	70	54	
Evard	chestnut oak	50	34	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	85	155	
	Virginia pine	75	115	
	white oak	75	57	
	yellow-poplar	90	90	
7D:				
Cliffield	chestnut oak	48	32	eastern white pine, shortleaf pine
	eastern white pine	83	151	
	Virginia pine	73	113	
	white oak	73	55	
	yellow-poplar	68	51	
Evard	chestnut oak	48	32	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	83	151	
	Virginia pine	73	113	
	white oak	73	55	
	yellow-poplar	88	86	
7E:				
Cliffield	chestnut oak	46	31	eastern white pine, shortleaf pine
	eastern white pine	81	146	
	Virginia pine	71	110	
	white oak	71	53	
	yellow-poplar	66	47	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
7E:				
Evard	chestnut oak	46	31	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	81	146	
	Virginia pine	71	110	
	white oak	71	53	
	yellow-poplar	86	82	
7F:				
Cliffield	chestnut oak	44	29	eastern white pine, shortleaf pine
	eastern white pine	79	142	
	Virginia pine	69	107	
	white oak	69	51	
	yellow-poplar	64	44	
Evard	chestnut oak	44	29	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	79	142	
	Virginia pine	69	107	
	white oak	69	51	
	yellow-poplar	84	79	
8B2:				
Clifford	chestnut oak	68	50	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	88	127	
	northern red oak	79	61	
	Virginia pine	69	107	
	white oak	76	58	
	yellow-poplar	81	73	
8C2:				
Clifford	chestnut oak	66	48	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	86	123	
	northern red oak	77	59	
	Virginia pine	67	104	
	white oak	74	56	
	yellow-poplar	79	69	
9A:				
Colvard	eastern white pine	83	151	American sycamore, eastern white pine, yellow-poplar
	shortleaf pine	75	120	
	Virginia pine	75	115	
	yellow-poplar	102	110	
Suches	loblolly pine	85	120	black walnut, eastern white pine, yellow-poplar
	yellow-poplar	98	104	
10A:				
Comus	loblolly pine	105	166	American sycamore, eastern white pine, yellow-poplar
	northern red oak	85	67	
	yellow-poplar	95	98	
Elsinboro	loblolly pine	100	154	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	85	67	
	Virginia pine	85	140	
	yellow-poplar	90	90	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
11B:				
Dillard	eastern white pine	84	153	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	83	136	
	yellow-poplar	88	86	
12C:				
Dillard	eastern white pine	82	148	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	81	132	
	yellow-poplar	86	82	
13B:				
Dillard	eastern white pine	84	153	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	83	136	
	yellow-poplar	88	86	
Tugglesgap	eastern white pine	87	159	eastern white pine, loblolly pine, yellow-poplar
	shortleaf pine	86	142	
	yellow-poplar	91	92	
14C:				
Dillard	eastern white pine	82	148	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	81	132	
	yellow-poplar	86	82	
Tugglesgap	eastern white pine	85	155	eastern white pine, loblolly pine, yellow-poplar
	shortleaf pine	84	138	
	yellow-poplar	89	88	
15B:				
Dillsboro	eastern white pine	104	195	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	80	130	
	yellow-poplar	112	127	
16C:				
Dillsboro	eastern white pine	102	188	black walnut, eastern white pine, yellow-poplar
	shortleaf pine	78	126	
	yellow-poplar	110	124	
17B:				
Evard	chestnut oak	50	34	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	85	155	
	Virginia pine	75	115	
	white oak	75	57	
	yellow-poplar	90	90	
Cowee	chestnut oak	55	38	eastern white pine, shortleaf pine
	eastern white pine	90	166	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	85	81	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
17C:				
Evard	chestnut oak	48	32	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	83	151	
	Virginia pine	73	113	
	white oak	73	55	
	yellow-poplar	88	86	
Cowee	chestnut oak	53	37	eastern white pine, shortleaf pine
	eastern white pine	88	162	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	83	77	
17D:				
Evard	chestnut oak	46	31	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	81	146	
	Virginia pine	71	110	
	white oak	71	53	
	yellow-poplar	86	82	
Cowee	chestnut oak	51	35	eastern white pine, shortleaf pine
	eastern white pine	86	157	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	81	73	
17E:				
Evard	chestnut oak	44	29	eastern white pine, shortleaf pine, yellow-poplar
	eastern white pine	79	142	
	Virginia pine	69	107	
	white oak	69	51	
	yellow-poplar	84	79	
Cowee	chestnut oak	49	33	eastern white pine, shortleaf pine
	eastern white pine	84	153	
	scarlet oak	48	32	
	Virginia pine	57	84	
	yellow-poplar	79	69	
18B:				
Evard	chestnut oak	50	34	chestnut oak, eastern white pine, scarlet oak, yellow-poplar
	eastern white pine	85	155	
	Virginia pine	75	115	
	white oak	75	57	
	yellow-poplar	90	90	
Cowee	chestnut oak	55	38	chestnut oak, eastern white pine, scarlet oak
	eastern white pine	90	166	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	85	81	
18C:				
Evard	chestnut oak	48	32	chestnut oak, eastern white pine, scarlet oak, yellow-poplar
	eastern white pine	83	151	
	Virginia pine	73	113	
	white oak	73	55	
	yellow-poplar	88	86	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
18C:				
Cowee	chestnut oak	53	37	chestnut oak, eastern white pine, scarlet oak
	eastern white pine	88	162	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	83	77	
18D:				
Evard	chestnut oak	46	31	chestnut oak, eastern white pine, scarlet oak, yellow-poplar
	eastern white pine	81	146	
	Virginia pine	71	110	
	white oak	71	53	
	yellow-poplar	86	82	
Cowee	chestnut oak	51	35	chestnut oak, eastern white pine, scarlet oak
	eastern white pine	86	157	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	81	73	
18E:				
Evard	chestnut oak	44	29	chestnut oak, eastern white pine, scarlet oak, yellow-poplar
	eastern white pine	79	142	
	Virginia pine	69	107	
	white oak	69	51	
	yellow-poplar	84	79	
Cowee	chestnut oak	49	33	chestnut oak, eastern white pine, scarlet oak
	eastern white pine	84	153	
	scarlet oak	48	32	
	Virginia pine	57	84	
	yellow-poplar	79	69	
19B2:				
Fairview	loblolly pine	77	105	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	66	101	
	yellow-poplar	88	86	
19C2:				
Fairview	loblolly pine	75	101	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	64	97	
	yellow-poplar	86	82	
19D2:				
Fairview	loblolly pine	73	98	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	62	92	
	yellow-poplar	84	79	
20B:				
Fairview	loblolly pine	79	108	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	68	106	
	yellow-poplar	90	90	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
20C:				
Fairview	loblolly pine	77	105	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	66	101	
	yellow-poplar	88	86	
20D:				
Fairview	loblolly pine	75	101	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	64	97	
	yellow-poplar	86	82	
21E:				
Fairview	loblolly pine	73	98	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	62	92	
	yellow-poplar	84	79	
Stott Knob	chestnut oak	51	35	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	74	130	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
22E:				
Fairview	loblolly pine	73	98	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	62	92	
	yellow-poplar	84	79	
Stott Knob	chestnut oak	51	35	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	74	130	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
23C:				
Fairystone	chestnut oak	55	38	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	78	139	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	80	71	
Littlejoe	chestnut oak	70	52	eastern white pine, loblolly pine, Virginia pine
	loblolly pine	90	131	
	northern red oak	81	62	
	Virginia pine	71	110	
	white oak	78	60	
	yellow-poplar	83	77	
24D:				
Fairystone	chestnut oak	53	37	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	76	135	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	78	68	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
24D:				
Littlejoe	chestnut oak	68	50	eastern white pine, loblolly pine, Virginia pine
	loblolly pine	88	127	
	northern red oak	79	61	
	Virginia pine	69	107	
	white oak	76	58	
	yellow-poplar	81	73	
25E:				
Fairystone	chestnut oak	51	35	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	74	130	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
Littlejoe	chestnut oak	66	48	eastern white pine, loblolly pine, Virginia pine
	loblolly pine	84	118	
	northern red oak	77	59	
	Virginia pine	67	104	
	white oak	74	56	
	yellow-poplar	79	69	
26A:				
French	eastern white pine	105	196	eastern white pine, white ash, yellow-poplar
	yellow-poplar	105	115	
27A:				
French	eastern white pine	105	196	eastern white pine, white ash, yellow-poplar
	yellow-poplar	105	115	
Dellwood	eastern white pine	91	168	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	100	107	
28D:				
Goblintown	chestnut oak	55	38	loblolly pine, Virginia pine
	eastern white pine	78	139	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	80	71	
Penhook	chestnut oak	55	38	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	78	139	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	80	71	
28E:				
Goblintown	chestnut oak	53	37	loblolly pine, Virginia pine
	eastern white pine	76	135	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	78	68	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
28E:				
Penhook	chestnut oak	53	37	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	76	135	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	78	68	
29A:				
Hatboro	green ash	89	64	green ash, yellow-poplar
	water oak	94	91	
	willow oak	94	91	
	yellow-poplar	100	107	
30F:				
Hickoryknob	chestnut oak	51	35	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	72	126	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
Rhodhiss	eastern white pine	86	157	eastern white pine, loblolly pine, yellow-poplar
	shortleaf pine	75	120	
	Virginia pine	78	119	
	yellow-poplar	98	104	
31C:				
Meadowfield	chestnut oak	50	34	chestnut oak, scarlet oak, shortleaf pine
	eastern white pine	85	162	
	Virginia pine	75	115	
	white oak	75	57	
	yellow-poplar	70	54	
Stott Knob	chestnut oak	55	38	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	78	139	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	80	71	
31D:				
Meadowfield	chestnut oak	48	32	chestnut oak, scarlet oak, shortleaf pine
	eastern white pine	83	151	
	Virginia pine	73	113	
	white oak	73	55	
	yellow-poplar	68	51	
Stott Knob	chestnut oak	53	37	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	76	135	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	78	68	
32E:				
Meadowfield	chestnut oak	46	31	chestnut oak, scarlet oak, shortleaf pine
	eastern white pine	81	146	
	Virginia pine	71	110	
	white oak	71	53	
	yellow-poplar	66	47	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
32E:				
Stott Knob	chestnut oak	51	35	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	74	130	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
32F:				
Meadowfield	chestnut oak	44	29	chestnut oak, scarlet oak, shortleaf pine
	eastern white pine	79	142	
	Virginia pine	69	107	
	white oak	69	51	
	yellow-poplar	64	44	
Stott Knob	chestnut oak	49	33	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	72	126	
	scarlet oak	48	32	
	Virginia pine	57	84	
	yellow-poplar	74	61	
33B:				
Minnieville	chestnut oak	70	52	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	85	120	
	northern red oak	70	52	
	Virginia pine	70	109	
	yellow-poplar	75	62	
33C:				
Minnieville	chestnut oak	68	50	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	83	116	
	northern red oak	68	50	
	Virginia pine	68	105	
	yellow-poplar	73	59	
33D:				
Minnieville	chestnut oak	66	48	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	81	112	
	northern red oak	66	48	
	Virginia pine	66	102	
	yellow-poplar	71	56	
33E:				
Minnieville	chestnut oak	64	47	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	79	108	
	northern red oak	64	47	
	Virginia pine	64	98	
	yellow-poplar	69	52	
34B:				
Minnieville	chestnut oak	70	52	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	85	120	
	northern red oak	70	52	
	Virginia pine	70	109	
	yellow-poplar	75	62	
Redbrush	loblolly pine	75	101	eastern white pine, loblolly pine, Virginia pine
	northern red oak	60	43	
	Virginia pine	60	91	
	yellow-poplar	70	54	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
34C:				
Minnieville	chestnut oak	68	50	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	83	116	
	northern red oak	68	50	
	Virginia pine	68	105	
	yellow-poplar	73	59	
Redbrush	loblolly pine	73	98	eastern white pine, loblolly pine, Virginia pine
	northern red oak	58	41	
	Virginia pine	58	86	
	yellow-poplar	68	51	
34D:				
Minnieville	chestnut oak	66	48	eastern white pine, loblolly pine, yellow-poplar
	loblolly pine	81	112	
	northern red oak	66	48	
	Virginia pine	66	102	
	yellow-poplar	71	56	
Redbrush	loblolly pine	71	95	eastern white pine, loblolly pine, Virginia pine
	northern red oak	56	39	
	Virginia pine	56	82	
	yellow-poplar	66	47	
35A:				
Nikwasi	eastern white pine	86	157	eastern white pine, yellow-poplar
	yellow-poplar	88	86	
Dellwood	eastern white pine	91	168	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	100	107	
36D:				
Peaks	eastern white pine	81	146	eastern white pine, shortleaf pine, Virginia pine
	northern red oak	62	45	
	Virginia pine	62	95	
	yellow-poplar	75	62	
Edneyville	eastern white pine	85	155	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	81	62	
	yellow-poplar	90	90	
36E:				
Peaks	eastern white pine	79	142	eastern white pine, shortleaf pine, Virginia pine
	northern red oak	60	43	
	Virginia pine	60	91	
	yellow-poplar	73	59	
Edneyville	eastern white pine	83	151	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	79	61	
	yellow-poplar	88	86	
37F:				
Peaks	eastern white pine	77	137	eastern white pine, shortleaf pine, Virginia pine
	northern red oak	58	41	
	Virginia pine	58	86	
	yellow-poplar	71	56	
Rock outcrop.				

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
38C:				
Penhook	chestnut oak	57	40	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	80	144	
	scarlet oak	56	39	
	Virginia pine	65	100	
	yellow-poplar	82	75	
Goblintown	chestnut oak	57	40	loblolly pine, Virginia pine
	eastern white pine	80	144	
	scarlet oak	56	39	
	Virginia pine	65	100	
	yellow-poplar	82	75	
39C:				
Penhook	chestnut oak	57	40	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	80	144	
	scarlet oak	56	39	
	Virginia pine	65	100	
	yellow-poplar	82	75	
Strawfield	chestnut oak	50	34	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	73	128	
	scarlet oak	49	33	
	Virginia pine	58	86	
	yellow-poplar	75	62	
39D:				
Penhook	chestnut oak	55	38	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	78	139	
	scarlet oak	54	38	
	Virginia pine	63	96	
	yellow-poplar	80	71	
Strawfield	chestnut oak	48	32	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	71	123	
	scarlet oak	47	32	
	Virginia pine	56	82	
	yellow-poplar	73	59	
39E:				
Penhook	chestnut oak	53	37	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	76	135	
	scarlet oak	52	36	
	Virginia pine	61	93	
	yellow-poplar	78	68	
Strawfield	chestnut oak	46	31	eastern white pine, loblolly pine, Virginia pine
	eastern white pine	69	119	
	scarlet oak	45	30	
	Virginia pine	54	77	
	yellow-poplar	71	56	
40E:				
Rhodhiss	eastern white pine	88	162	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	77	124	
	Virginia pine	80	123	
	yellow-poplar	100	107	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
40E:				
Stott Knob	chestnut oak	51	35	chestnut oak, eastern white pine, scarlet oak, shortleaf pine
	eastern white pine	74	130	
	scarlet oak	50	34	
	Virginia pine	59	88	
	yellow-poplar	76	64	
41B:				
Saunook	eastern white pine	104	194	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	107	119	
41C:				
Saunook	eastern white pine	102	190	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	105	115	
41D:				
Saunook	eastern white pine	100	186	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	103	112	
42B:				
Saunook	eastern white pine	104	194	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	107	119	
Thunder	northern red oak	92	74	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	105	115	
42C:				
Saunook	eastern white pine	102	190	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	105	115	
Thunder	northern red oak	90	71	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	103	112	
42D:				
Saunook	eastern white pine	100	186	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	103	112	
Thunder	northern red oak	88	70	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	101	109	
43B:				
Thurmont	eastern white pine	102	190	eastern white pine, loblolly pine, yellow-poplar
	shortleaf pine	80	130	
	yellow-poplar	98	104	
43C:				
Thurmont	eastern white pine	100	186	eastern white pine, loblolly pine, yellow-poplar
	shortleaf pine	78	126	
	yellow-poplar	96	100	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
43D:				
Thurmont----------------	eastern white pine--	98	182	eastern white pine,
	shortleaf pine------	76	122	loblolly pine,
	yellow-poplar-------	94	97	yellow-poplar
44C:				
Thurmont----------------	eastern white pine--	100	186	eastern white pine,
	shortleaf pine------	78	126	loblolly pine,
	yellow-poplar-------	96	100	yellow-poplar
44D:				
Thurmont----------------	eastern white pine--	98	182	eastern white pine,
	shortleaf pine------	76	122	loblolly pine,
	yellow-poplar-------	94	97	yellow-poplar
45B:				
Trimont-----------------	eastern white pine--	89	164	eastern white pine,
	northern red oak----	96	77	shortleaf pine,
	yellow-poplar-------	102	110	yellow-poplar
Kibler------------------	eastern white pine--	89	164	eastern white pine,
	northern red oak----	85	67	shortleaf pine,
	yellow-poplar-------	96	100	yellow-poplar
45C:				
Trimont-----------------	eastern white pine--	87	159	eastern white pine,
	northern red oak----	94	75	shortleaf pine,
	yellow-poplar-------	100	107	yellow-poplar
Kibler------------------	eastern white pine--	87	159	eastern white pine,
	northern red oak----	83	64	shortleaf pine,
	yellow-poplar-------	94	97	yellow-poplar
45D:				
Trimont-----------------	eastern white pine--	85	155	eastern white pine,
	northern red oak----	91	72	shortleaf pine,
	yellow-poplar-------	98	104	yellow-poplar
Kibler------------------	eastern white pine--	85	155	eastern white pine,
	northern red oak----	81	62	shortleaf pine,
	yellow-poplar-------	92	93	yellow-poplar
45E:				
Trimont-----------------	eastern white pine--	83	151	eastern white pine,
	northern red oak----	89	71	shortleaf pine,
	yellow-poplar-------	96	100	yellow-poplar
Kibler------------------	eastern white pine--	83	151	eastern white pine,
	northern red oak----	79	61	shortleaf pine,
	yellow-poplar-------	90	90	yellow-poplar
46B:				
Trimont-----------------	eastern white pine--	89	164	eastern white pine,
	northern red oak----	96	77	shortleaf pine,
	yellow-poplar-------	102	110	yellow-poplar
Kibler------------------	eastern white pine--	89	164	eastern white pine,
	northern red oak----	85	67	shortleaf pine,
	yellow-poplar-------	96	100	yellow-poplar

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
46C:				
Trimont----------------	eastern white pine--	87	159	eastern white pine,
	northern red oak----	94	75	shortleaf pine,
	yellow-poplar-------	100	107	yellow-poplar
Kibler-----------------	eastern white pine--	87	159	eastern white pine,
	northern red oak----	83	64	shortleaf pine,
	yellow-poplar-------	94	97	yellow-poplar
46D:				
Trimont----------------	eastern white pine--	85	155	eastern white pine,
	northern red oak----	92	74	shortleaf pine,
	yellow-poplar-------	88	86	yellow-poplar
Kibler-----------------	eastern white pine--	85	155	eastern white pine,
	northern red oak----	81	62	shortleaf pine,
	yellow-poplar-------	92	93	yellow-poplar
46E:				
Trimont----------------	eastern white pine--	83	151	eastern white pine,
	northern red oak----	90	71	shortleaf pine,
	yellow-poplar-------	86	82	yellow-poplar
Kibler-----------------	eastern white pine--	83	151	eastern white pine,
	northern red oak----	79	61	shortleaf pine,
	yellow-poplar-------	90	90	yellow-poplar
47C:				
Tuckasegee-------------	eastern white pine--	108	202	eastern white pine,
	northern red oak----	102	84	shortleaf pine,
	yellow-poplar-------	119	138	yellow-poplar
Cullasaja--------------	northern red oak----	92	74	eastern white pine,
	yellow-poplar-------	109	122	shortleaf pine,
				yellow-poplar
47D:				
Tuckasegee-------------	eastern white pine--	106	198	eastern white pine,
	northern red oak----	100	81	shortleaf pine,
	yellow-poplar-------	117	134	yellow-poplar
Cullasaja--------------	northern red oak----	90	71	eastern white pine,
	yellow-poplar-------	107	119	shortleaf pine,
				yellow-poplar
47E:				
Tuckasegee-------------	eastern white pine--	104	194	eastern white pine,
	northern red oak----	98	80	shortleaf pine,
	yellow-poplar-------	115	132	yellow-poplar
Cullasaja--------------	northern red oak----	88	70	eastern white pine,
	yellow-poplar-------	105	115	shortleaf pine,
				yellow-poplar
48.				
Udorthents				

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
49F:				
Widgett	northern red oak	87	68	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	88	86	
Kibler	eastern white pine	81	146	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	77	59	
	yellow-poplar	88	86	
50D:				
Widgett	northern red oak	91	72	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	92	93	
Trimont	eastern white pine	85	155	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	91	72	
	yellow-poplar	98	104	
50E:				
Widgett	northern red oak	89	71	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	90	90	
Trimont	eastern white pine	83	151	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	89	71	
	yellow-poplar	96	100	
50F:				
Widgett	northern red oak	87	68	eastern white pine, shortleaf pine, yellow-poplar
	yellow-poplar	88	86	
Trimont	eastern white pine	81	146	eastern white pine, shortleaf pine, yellow-poplar
	northern red oak	87	68	
	yellow-poplar	94	97	
51B:				
Woolwine	loblolly pine	75	101	eastern white pine, shortleaf pine, yellow-poplar
	scarlet oak	73	55	
	shortleaf pine	64	97	
	Virginia pine	76	117	
	yellow-poplar	85	81	
Fairview	loblolly pine	79	108	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	68	106	
	yellow-poplar	90	90	
51C:				
Woolwine	loblolly pine	73	98	eastern white pine, shortleaf pine, yellow-poplar
	scarlet oak	71	53	
	shortleaf pine	62	92	
	Virginia pine	74	114	
	yellow-poplar	83	77	
Fairview	loblolly pine	77	108	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	66	106	
	yellow-poplar	88	90	

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
51D:				
Woolwine	loblolly pine	71	95	eastern white pine, shortleaf pine, yellow-poplar
	scarlet oak	69	51	
	shortleaf pine	60	88	
	Virginia pine	72	112	
	yellow-poplar	81	73	
Fairview	loblolly pine	75	108	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	64	106	
	yellow-poplar	86	90	
51E:				
Woolwine	loblolly pine	69	91	eastern white pine, shortleaf pine, yellow-poplar
	scarlet oak	67	49	
	shortleaf pine	58	84	
	Virginia pine	70	109	
	yellow-poplar	79	69	
Fairview	loblolly pine	73	108	eastern white pine, shortleaf pine, yellow-poplar
	shortleaf pine	62	106	
	yellow-poplar	84	90	
W. Water				

Table 9.—Forestland Management, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1D:							
Bellspur------------	60	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Restrictive layer	0.50				
Kibler--------------	20	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
1E:							
Bellspur------------	55	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Kibler--------------	25	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
2C:							
Bellspur------------	65	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Trimont-------------	20	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
3C:							
Bluemount-----------	90	Moderate		Moderately suited		Moderate	
		Restrictive layer	0.50	Slope	0.50	Low strength	0.50
		Low strength	0.50				
3D:							
Bluemount-----------	90	Severe		Poorly suited		Moderate	
		Restrictive layer	1.00	Slope	1.00	Low strength	0.50
		Slope	0.50				
3E:							
Bluemount-----------	90	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
4B:							
Braddock------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
4C:							
Braddock------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
4D:							
Braddock------------	90	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
5B:							
Braddock	90	Severe		Well suited		Moderate	
		Stoniness	1.00			Low strength	0.50
5C:							
Braddock	90	Severe		Moderately suited		Moderate	
		Stoniness	1.00	Slope	0.50	Low strength	0.50
5D:							
Braddock	90	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
6F:							
Bugley	70	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Stoniness	0.50	Rock fragments	0.50		
		Low strength	0.50	Low strength	0.50		
Littlejoe	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Stoniness	0.50	Rock fragments	0.50		
		Low strength	0.50	Low strength	0.50		
7C:							
Cliffield	55	Moderate		Moderately suited		Slight	
		Restrictive layer	0.50	Slope	0.50	Strength	0.10
Evard	25	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
7D:							
Cliffield	55	Severe		Poorly suited		Slight	
		Restrictive layer	1.00	Slope	1.00	Strength	0.10
		Slope	0.50				
Evard	25	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
7E:							
Cliffield	55	Severe		Poorly suited		Slight	
		Slope	1.00	Slope	1.00	Strength	0.10
Evard	25	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
7F:							
Cliffield	65	Severe		Poorly suited		Slight	
		Slope	1.00	Slope	1.00	Strength	0.10
Evard	15	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
8B2:							
Clifford	90	Slight		Well suited		Moderate	
						Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
8C2:							
Clifford------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
9A:							
Colvard-------------	45	Severe		Poorly suited		Moderate	
		Flooding	1.00	Flooding	1.00	Low strength	0.50
Suches--------------	40	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
10A:							
Comus---------------	65	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
Elsinboro-----------	20	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
11B:							
Dillard-------------	75	Slight		Well suited		Moderate	
						Low strength	0.50
12C:							
Dillard-------------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
13B:							
Dillard-------------	50	Slight		Well suited		Moderate	
						Low strength	0.50
Tugglesgap----------	30	Slight		Well suited		Moderate	
						Low strength	0.50
14C:							
Dillard-------------	50	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Tugglesgap----------	30	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
15B:							
Dillsboro-----------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
16C:							
Dillsboro-----------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
17B:							
Evard---------------	70	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
Cowee---------------	20	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
17C:							
Evard---------------	70	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
Cowee---------------	20	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
17D:							
Evard---------------	65	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Cowee---------------	25	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Restrictive layer	0.50				
17E:							
Evard---------------	55	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
Cowee---------------	35	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
18B:							
Evard---------------	70	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
Cowee---------------	20	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
18C:							
Evard---------------	55	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
Cowee---------------	35	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
18D:							
Evard---------------	50	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Cowee---------------	40	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Restrictive layer	0.50				
18E:							
Evard---------------	50	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
Cowee---------------	40	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
19B2:							
Fairview------------	90	Slight		Well suited		Moderate	
						Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
19C2:							
Fairview-----------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
19D2:							
Fairview-----------	90	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
20B:							
Fairview-----------	90	Slight		Well suited		Moderate	
						Low strength	0.50
20C:							
Fairview-----------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
20D:							
Fairview-----------	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
21E:							
Fairview-----------	60	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Stott Knob----------	30	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
22E:							
Fairview-----------	75	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Stott Knob----------	15	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
23C:							
Fairystone----------	75	Moderate		Moderately suited		Severe	
		Restrictive layer	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Littlejoe-----------	20	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
24D:							
Fairystone----------	75	Moderate		Poorly suited		Severe	
		Restrictive layer	0.50	Slope	1.00	Low strength	1.00
		Slope	0.50	Low strength	0.50		
Littlejoe-----------	20	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Restrictive layer	0.50	Low strength	0.50		
25E:							
Fairystone----------	70	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Stoniness	0.50	Rock fragments	0.50		
				Low strength	0.50		

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
25E:							
Littlejoe-----------	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Stoniness	0.50	Rock fragments	0.50		
		Low strength	0.50	Low strength	0.50		
26A:							
French--------------	85	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
		Sandiness	0.50	Wetness	0.50		
27A:							
French--------------	55	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
		Sandiness	0.50	Wetness	0.50		
Dellwood------------	40	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
28D:							
Goblintown----------	45	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Penhook-------------	45	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
28E:							
Goblintown----------	55	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Penhook-------------	35	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
29A:							
Hatboro-------------	85	Severe		Poorly suited		Severe	
		Flooding	1.00	Ponding	1.00	Low strength	1.00
		Wetness	1.00	Flooding	1.00		
		Low strength	0.50	Wetness	1.00		
30F:							
Hickoryknob---------	70	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Rhodhiss------------	15	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
31C:							
Meadowfield---------	60	Moderate		Moderately suited		Moderate	
		Restrictive layer	0.50	Slope	0.50	Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
31C:							
Stott Knob----------	30	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
31D:							
Meadowfield---------	65	Severe		Poorly suited		Moderate	
		Restrictive layer	1.00	Slope	1.00	Low strength	0.50
		Slope	0.50				
Stott Knob----------	25	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
32E:							
Meadowfield---------	65	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Stott Knob----------	15	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
32F:							
Meadowfield---------	60	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Stott Knob----------	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
33B:							
Minnieville---------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
33C:							
Minnieville---------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
33D:							
Minnieville---------	90	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
33E:							
Minnieville---------	90	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
34B:							
Minnieville---------	65	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Redbrush------------	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Restrictive layer	0.50				

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34C:							
Minnieville	60	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Redbrush	40	Moderate		Moderately suited		Severe	
		Restrictive layer	0.50	Slope	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
34D:							
Minnieville	60	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Redbrush	40	Moderate		Poorly suited		Severe	
		Restrictive layer	0.50	Slope	1.00	Low strength	1.00
		Slope	0.50	Low strength	0.50		
35A:							
Nikwasi	55	Severe		Poorly suited		Severe	
		Flooding	1.00	Ponding	1.00	Low strength	1.00
		Wetness	1.00	Flooding	1.00		
		Low strength	0.50	Wetness	0.50		
Dellwood	35	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
36D:							
Peaks	60	Moderate		Poorly suited		Moderate	
		Restrictive layer	0.50	Slope	1.00	Low strength	0.50
		Slope	0.50				
Edneyville	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
36E:							
Peaks	65	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Edneyville	25	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
37F:							
Peaks	50	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Rock outcrop	30	Not rated		Not rated		Not rated	
38C:							
Penhook	55	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Goblintown	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
39C:							
Penhook	65	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Strawfield	30	Moderate		Moderately suited		Severe	
		Restrictive layer	0.50	Slope	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
39D:							
Penhook	65	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Strawfield	30	Severe		Poorly suited		Severe	
		Restrictive layer	1.00	Slope	1.00	Low strength	1.00
		Slope	0.50	Low strength	0.50		
39E:							
Penhook	60	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Strawfield	30	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
40E:							
Rhodhiss	75	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Stott Knob	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
41B:							
Saunook	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
41C:							
Saunook	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
41D:							
Saunook	85	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
42B:							
Saunook	60	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Thunder	30	Severe		Well suited		Slight	
		Stoniness	1.00			Strength	0.10

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
42C:							
Saunook-------------	55	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Thunder-------------	35	Severe		Moderately suited		Slight	
		Stoniness	1.00	Slope	0.50	Strength	0.10
42D:							
Saunook-------------	55	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Thunder-------------	35	Moderate		Poorly suited		Slight	
		Slope	0.50	Slope	1.00	Strength	0.10
43B:							
Thurmont------------	90	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
43C:							
Thurmont------------	90	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
43D:							
Thurmont------------	90	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
44C:							
Thurmont------------	90	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
44D:							
Thurmont------------	90	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
45B:							
Trimont-------------	60	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Kibler--------------	30	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
45C:							
Trimont-------------	55	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Kibler--------------	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
45D:							
Trimont-------------	50	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Kibler--------------	40	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
45E:							
Trimont-------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Kibler--------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
46B:							
Trimont-------------	60	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Kibler--------------	30	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
46C:							
Trimont-------------	55	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Kibler--------------	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
46D:							
Trimont-------------	50	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Kibler--------------	40	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
46E:							
Trimont-------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Kibler--------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
47C:							
Tuckasegee----------	45	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Cullasaja-----------	40	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
47D:							
Tuckasegee----------	45	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Cullasaja-----------	40	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
47E:							
Tuckasegee----------	45	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Cullasaja-----------	40	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
48:							
Udorthents----------	90	Not rated		Not rated		Not rated	
49F:							
Widgett-------------	50	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Kibler--------------	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
50D:							
Widgett-------------	60	Moderate		Poorly suited		Moderate	
		Restrictive layer	0.50	Slope	1.00	Low strength	0.50
		Slope	0.50				
Trimont-------------	20	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
50E:							
Widgett-------------	55	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Trimont-------------	25	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
				Low strength	0.50		
50F:							
Widgett-------------	50	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
Trimont-------------	20	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
				Low strength	0.50		
51B:							
Woolwine------------	70	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Fairview------------	30	Slight		Well suited		Moderate	
						Low strength	0.50
51C:							
Woolwine------------	70	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Fairview------------	30	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
51D:							
Woolwine------------	70	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Restrictive layer	0.50	Low strength	0.50		
Fairview------------	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
51E:							
Woolwine------------	70	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Fairview------------	30	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
W:							
Water----------------	100	Not rated		Not rated		Not rated	

Table 9.—Forestland Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
1D:							
Bellspur------------	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Kibler--------------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
1E:							
Bellspur------------	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Kibler--------------	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
2C:							
Bellspur------------	65	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Trimont-------------	20	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
3C:							
Bluemount-----------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
3D:							
Bluemount-----------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
3E:							
Bluemount-----------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
4B:							
Braddock------------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
4C:							
Braddock------------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
4D:							
Braddock------------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
5B:							
Braddock------------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
5C:							
Braddock------------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
5D:							
Braddock------------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
6F:							
Bugley--------------	70	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
Littlejoe-----------	20	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
7C:							
Cliffield-----------	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Evard---------------	25	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
7D:							
Cliffield-----------	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Evard---------------	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
7E:							
Cliffield-----------	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Evard---------------	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
7F:							
Cliffield-----------	65	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
Evard---------------	15	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
8B2:							
Clifford------------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
8C2:							
Clifford------------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
9A:							
Colvard-------------	45	Slight		Slight		Poorly suited	
						Flooding	1.00
Suches--------------	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
10A:							
Comus	65	Slight		Slight		Moderately suited	
						Flooding	0.50
Elsinboro	20	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
11B:							
Dillard	75	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
12C:							
Dillard	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
13B:							
Dillard	50	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Tugglesgap	30	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
14C:							
Dillard	50	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
Tugglesgap	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
15B:							
Dillsboro	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
16C:							
Dillsboro	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
17B:							
Evard	70	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Cowee	20	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
17C:							
Evard	70	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Cowee	20	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
17D:							
Evard	65	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cowee	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
17E:							
Evard	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cowee	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
18B:							
Evard	70	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Cowee	20	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
18C:							
Evard	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Cowee	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
18D:							
Evard	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cowee	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
18E:							
Evard	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cowee	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
19B2:							
Fairview	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
19C2:							
Fairview	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
19D2:							
Fairview	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
20B:							
Fairview	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
20C:							
Fairview	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
20D:							
Fairview	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
21E:							
Fairview------------	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Stott Knob----------	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
22E:							
Fairview------------	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Stott Knob----------	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
23C:							
Fairystone----------	75	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
Littlejoe-----------	20	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
24D:							
Fairystone----------	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Littlejoe-----------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
25E:							
Fairystone----------	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
Littlejoe-----------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
26A:							
French--------------	85	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
27A:							
French--------------	55	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Dellwood------------	40	Slight		Slight		Moderately suited	
						Flooding	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
28D:							
Goblintown	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Penhook	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
28E:							
Goblintown	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Penhook	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
29A:							
Hatboro	85	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
30F:							
Hickoryknob	70	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Rhodhiss	15	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
31C:							
Meadowfield	60	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Stott Knob	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
31D:							
Meadowfield	65	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Stott Knob	25	Moderate		Moderate		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.50	Slope	1.00
						Low strength	0.50
32E:							
Meadowfield	65	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Stott Knob	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
32F:							
Meadowfield---------	60	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
Stott Knob----------	20	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
33B:							
Minnieville---------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
33C:							
Minnieville---------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
33D:							
Minnieville---------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
33E:							
Minnieville---------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
34B:							
Minnieville---------	65	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Redbrush------------	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
34C:							
Minnieville---------	60	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Redbrush------------	40	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
34D:							
Minnieville---------	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Redbrush------------	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
35A:							
Nikwasi-------------	55	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	0.50
Dellwood------------	35	Slight		Slight		Moderately suited	
						Flooding	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
36D:							
Peaks	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Edneyville	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
36E:							
Peaks	65	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Edneyville	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
37F:							
Peaks	50	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
Rock outcrop	30	Not rated		Not rated		Not rated	
38C:							
Penhook	55	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Goblintown	35	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
39C:							
Penhook	65	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Strawfield	30	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
39D:							
Penhook	65	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Strawfield	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
39E:							
Penhook	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Strawfield	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
40E:							
Rhodhiss	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
40E:							
Stott Knob----------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
41B:							
Saunook-------------	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
41C:							
Saunook-------------	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
41D:							
Saunook-------------	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
42B:							
Saunook-------------	60	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Thunder-------------	30	Slight		Slight		Well suited	
42C:							
Saunook-------------	55	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Thunder-------------	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
42D:							
Saunook-------------	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Thunder-------------	35	Moderate		Moderate		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.50	Slope	1.00
43B:							
Thurmont------------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
43C:							
Thurmont------------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
43D:							
Thurmont------------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
44C:							
Thurmont------------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
44D:							
Thurmont------------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
45B:							
Trimont	60	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Kibler	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
45C:							
Trimont	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
Kibler	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
45D:							
Trimont	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Kibler	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
45E:							
Trimont	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Kibler	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
46B:							
Trimont	60	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Kibler	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
46C:							
Trimont	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
Kibler	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
46D:							
Trimont	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Kibler	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
46E:							
Trimont-------------	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Kibler--------------	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
47C:							
Tuckasegee----------	45	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Cullasaja-----------	40	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
47D:							
Tuckasegee----------	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cullasaja-----------	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
47E:							
Tuckasegee----------	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Cullasaja-----------	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
48:							
Udorthents----------	90	Not rated		Not rated		Not rated	
49F:							
Widgett-------------	50	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
Kibler--------------	20	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
50D:							
Widgett-------------	60	Moderate		Moderate		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.50	Slope	1.00
Trimont-------------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
50E:							
Widgett-------------	55	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Trimont-------------	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
50F:							
Widgett	50	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
Trimont	20	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
51B:							
Woolwine	70	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Fairview	30	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
51C:							
Woolwine	70	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Fairview	30	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
51D:							
Woolwine	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Fairview	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
51E:							
Woolwine	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Fairview	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
W:							
Water	100	Not rated		Not rated		Not rated	

Table 9.—Forestland Management, Part III

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1D:							
Bellspur	60	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
Kibler	20	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
1E:							
Bellspur	55	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
Kibler	25	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50
2C:							
Bellspur	65	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
Trimont	20	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
3C:							
Bluemount	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
3D:							
Bluemount	90	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
3E:							
Bluemount	90	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
4B:							
Braddock	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Slope	0.50		
				Stickiness; high plasticity index	0.50		
4C:							
Braddock	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Slope	0.50		
				Stickiness; high plasticity index	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
4D:							
Braddock------------	90	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Slope	0.50
				Stickiness; high plasticity index	0.50		
5B:							
Braddock------------	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Rock fragments	0.50		
				Slope	0.50		
				Stickiness; high plasticity index	0.50		
5C:							
Braddock------------	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Rock fragments	0.50		
				Slope	0.50		
				Stickiness; high plasticity index	0.50		
5D:							
Braddock------------	90	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Slope	0.50
				Rock fragments	0.50		
				Stickiness; high plasticity index	0.50		
6F:							
Bugley--------------	70	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.75	Rock fragments	0.50
						Low strength	0.50
Littlejoe-----------	20	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.75	Rock fragments	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
7C:							
Cliffield-----------	55	Moderately suited		Unsuited		Well suited	
		Rock fragments	0.50	Rock fragments	1.00		
				Slope	0.50		
Evard---------------	25	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
7D:							
Cliffield-----------	55	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Rock fragments	1.00	Slope	0.50
				Slope	0.75		
Evard---------------	25	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
7E:							
Cliffield	55	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Rock fragments	1.00		
Evard	25	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
7F:							
Cliffield	65	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	1.00		
Evard	15	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50		
8B2:							
Clifford	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		
8C2:							
Clifford	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		
9A:							
Colvard	45	Well suited		Well suited		Well suited	
Suches	40	Well suited		Well suited		Moderately suited	
						Low strength	0.50
10A:							
Comus	65	Well suited		Well suited		Well suited	
Elsinboro	20	Well suited		Well suited		Moderately suited	
						Low strength	0.50
11B:							
Dillard	75	Well suited		Moderately suited		Well suited	
				Slope	0.50		
12C:							
Dillard	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
13B:							
Dillard	50	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Tugglesgap	30	Moderately suited		Poorly suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.75		
				Slope	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
14C:							
Dillard-------------	50	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Tugglesgap----------	30	Moderately suited		Poorly suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.75		
				Slope	0.50		
15B:							
Dillsboro-----------	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Rock fragments	0.50	Low strength	0.50
				Slope	0.50		
				Stickiness; high plasticity index	0.50		
16C:							
Dillsboro-----------	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
17B:							
Evard---------------	70	Well suited		Moderately suited		Well suited	
				Rock fragments	0.50		
				Slope	0.50		
Cowee---------------	20	Well suited		Moderately suited		Well suited	
				Rock fragments	0.50		
				Slope	0.50		
17C:							
Evard---------------	70	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
Cowee---------------	20	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
17D:							
Evard---------------	65	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
Cowee---------------	25	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
17E:							
Evard---------------	55	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
Cowee---------------	35	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
18B:							
Evard	70	Well suited		Moderately suited		Well suited	
				Rock fragments	0.50		
				Slope	0.50		
Cowee	20	Well suited		Moderately suited		Well suited	
				Rock fragments	0.50		
				Slope	0.50		
18C:							
Evard	55	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
Cowee	35	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
18D:							
Evard	50	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
Cowee	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
18E:							
Evard	50	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
Cowee	40	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
19B2:							
Fairview	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
19C2:							
Fairview	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
19D2:							
Fairview	90	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
20B:							
Fairview	90	Moderately suited		Moderately suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.50		
				Slope	0.50		
20C:							
Fairview	90	Moderately suited		Moderately suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.50		
				Slope	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
20D:							
Fairview-----------	85	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Slope	0.75	Slope	0.50
				Rock fragments	0.50		
21E:							
Fairview-----------	60	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Stott Knob----------	30	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
22E:							
Fairview-----------	75	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50		
Stott Knob----------	15	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50	Low strength	0.50
23C:							
Fairystone----------	75	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
				Slope	0.50		
		Rock fragments	0.50	Stickiness; high plasticity index	0.50		
Littlejoe-----------	20	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
24D:							
Fairystone----------	75	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Rock fragments	0.75	Slope	0.50
		Rock fragments	0.50	Stickiness; high plasticity index	0.50		
Littlejoe-----------	20	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
25E:							
Fairystone----------	70	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Rock fragments	0.75	Rock fragments	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Littlejoe-----------	20	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Rock fragments	0.75	Rock fragments	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
26A:							
French	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
27A:							
French	55	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Dellwood	40	Moderately suited		Poorly suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.75		
28D:							
Goblintown	45	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
						Slope	0.50
Penhook	45	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
28E:							
Goblintown	55	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Penhook	35	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
29A:							
Hatboro	85	Well suited		Well suited		Poorly suited	
						Wetness	1.00
						Low strength	0.50
30F:							
Hickoryknob	70	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50	Low strength	0.50
Rhodhiss	15	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
						Low strength	0.50
31C:							
Meadowfield	60	Well suited		Moderately suited		Well suited	
				Rock fragments	0.50		
				Slope	0.50		
Stott Knob	30	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
31D:							
Meadowfield	65	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
31D:							
Stott Knob----------	25	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
32E:							
Meadowfield---------	65	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
Stott Knob----------	15	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50
32F:							
Meadowfield---------	60	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50		
Stott Knob----------	20	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50	Low strength	0.50
33B:							
Minnieville---------	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
33C:							
Minnieville---------	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
33D:							
Minnieville---------	90	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
33E:							
Minnieville---------	90	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
34B:							
Minnieville---------	65	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Redbrush------------	35	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50		
				Rock fragments	0.50		

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
34C:							
Minnieville	60	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Redbrush	40	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50		
				Rock fragments	0.50		
34D:							
Minnieville	60	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
Redbrush	40	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.75	Slope	0.50
				Rock fragments	0.50		
35A:							
Nikwasi	55	Well suited		Well suited		Poorly suited	
						Wetness	1.00
						Low strength	0.50
Dellwood	35	Moderately suited		Poorly suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.75		
36D:							
Peaks	60	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.75	Slope	0.50
				Slope	0.75		
Edneyville	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
36E:							
Peaks	65	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Rock fragments	0.75		
Edneyville	25	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
37F:							
Peaks	50	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.75		
Rock outcrop	30	Not rated		Not rated		Not rated	

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
38C:							
Penhook	55	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Goblintown	35	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
39C:							
Penhook	65	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Strawfield	30	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
39D:							
Penhook	65	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
Strawfield	30	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
39E:							
Penhook	60	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Strawfield	30	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
40E:							
Rhodhiss	75	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Stott Knob	20	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
41B:							
Saunook	85	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
41C:							
Saunook	85	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
41D:							
Saunook-------------	85	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
						Slope	0.50
42B:							
Saunook-------------	60	Well suited		Moderately suited		Moderately suited	
				Rock fragments	0.50	Low strength	0.50
				Slope	0.50		
Thunder-------------	30	Moderately suited		Unsuited		Well suited	
		Rock fragments	0.50	Rock fragments	1.00		
				Slope	0.50		
42C:							
Saunook-------------	55	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Thunder-------------	35	Moderately suited		Unsuited		Well suited	
		Rock fragments	0.50	Rock fragments	1.00		
				Slope	0.50		
42D:							
Saunook-------------	55	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
Thunder-------------	35	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Rock fragments	1.00	Slope	0.50
				Slope	0.75		
43B:							
Thurmont------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
43C:							
Thurmont------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
43D:							
Thurmont------------	90	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
44C:							
Thurmont------------	90	Moderately suited		Moderately suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.50		
				Slope	0.50		
44D:							
Thurmont------------	90	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Slope	0.75	Slope	0.50
				Rock fragments	0.50		
45B:							
Trimont-------------	60	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Kibler--------------	30	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
45C:							
Trimont-------------	55	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Kibler--------------	35	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
45D:							
Trimont-------------	50	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
						Slope	0.50
Kibler--------------	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
						Slope	0.50
45E:							
Trimont-------------	45	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Kibler--------------	45	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
46B:							
Trimont-------------	60	Well suited		Moderately suited		Moderately suited	
				Rock fragments	0.50	Low strength	0.50
				Slope	0.50		
Kibler--------------	30	Well suited		Moderately suited		Moderately suited	
				Rock fragments	0.50	Low strength	0.50
				Slope	0.50		
46C:							
Trimont-------------	55	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Kibler--------------	35	Well suited		Moderately suited		Moderately suited	
				Rock fragments	0.50	Low strength	0.50
				Slope	0.50		
46D:							
Trimont-------------	50	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
Kibler--------------	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
46E:							
Trimont-------------	45	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50
Kibler--------------	45	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
47C:							
Tuckasegee----------	45	Moderately suited		Moderately suited		Well suited	
		Rock fragments	0.50	Rock fragments	0.50		
				Slope	0.50		
Cullasaja-----------	40	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
47D:							
Tuckasegee----------	45	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Slope	0.75	Slope	0.50
				Rock fragments	0.50		
Cullasaja-----------	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
47E:							
Tuckasegee----------	45	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50		
Cullasaja-----------	40	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50		
48:							
Udorthents----------	90	Not rated		Not rated		Not rated	
49F:							
Widgett-------------	50	Moderately suited		Unsuited		Poorly suited	
		Rock fragments	0.50	Slope	1.00	Slope	1.00
		Slope	0.50	Rock fragments	0.75		
Kibler--------------	20	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50	Low strength	0.50
50D:							
Widgett-------------	60	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.75	Slope	0.50
				Slope	0.75		
Trimont-------------	20	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
				Rock fragments	0.50	Slope	0.50
50E:							
Widgett-------------	55	Moderately suited		Unsuited		Moderately suited	
		Rock fragments	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Rock fragments	0.75		
Trimont-------------	25	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
50F:							
Widgett	50	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.75		
Trimont	20	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50	Low strength	0.50
51B:							
Woolwine	70	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Fairview	30	Well suited		Moderately suited		Well suited	
				Slope	0.50		
51C:							
Woolwine	70	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Fairview	30	Well suited		Moderately suited		Well suited	
				Slope	0.50		
51D:							
Woolwine	70	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
						Slope	0.50
Fairview	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
51E:							
Woolwine	70	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Fairview	30	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
W:							
Water	100	Not rated		Not rated		Not rated	

Table 9.—Forestland Management, Part IV

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1D:					
Bellspur	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
1E:					
Bellspur	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
2C:					
Bellspur	65	Well suited		Well suited	
Trimont	20	Well suited		Well suited	
3C:					
Bluemount	90	Well suited		Poorly suited	
				Rock fragments	0.50
				Restrictive layer	0.50
3D:					
Bluemount	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Rock fragments	0.50
				Restrictive layer	0.50
3E:					
Bluemount	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Rock fragments	0.50
				Restrictive layer	0.50
4B:					
Braddock	90	Well suited		Well suited	
4C:					
Braddock	90	Well suited		Well suited	
4D:					
Braddock	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
5B:					
Braddock	90	Well suited		Well suited	
5C:					
Braddock	90	Well suited		Well suited	

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
5D:					
Braddock	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
6F:					
Bugley	70	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Restrictive layer	1.00
				Rock fragments	0.50
Littlejoe	20	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50
7C:					
Cliffield	55	Poorly suited		Poorly suited	
		Rock fragments	0.50	Rock fragments	0.50
				Restrictive layer	0.50
Evard	25	Well suited		Well suited	
7D:					
Cliffield	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50
				Restrictive layer	0.50
Evard	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
7E:					
Cliffield	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50
				Restrictive layer	0.50
Evard	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
7F:					
Cliffield	65	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50
				Restrictive layer	0.50
Evard	15	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
8B2:					
Clifford	90	Well suited		Well suited	
8C2:					
Clifford	90	Well suited		Well suited	
9A:					
Colvard	45	Well suited		Well suited	
Suches	40	Well suited		Well suited	

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
10A:					
Comus	65	Well suited		Well suited	
Elsinboro	20	Well suited		Well suited	
11B:					
Dillard	75	Well suited		Well suited	
12C:					
Dillard	85	Well suited		Well suited	
13B:					
Dillard	50	Well suited		Well suited	
Tugglesgap	30	Poorly suited		Well suited	
		Rock fragments	0.50		
14C:					
Dillard	50	Well suited		Well suited	
Tugglesgap	30	Poorly suited		Well suited	
		Rock fragments	0.50		
15B:					
Dillsboro	90	Well suited		Well suited	
16C:					
Dillsboro	90	Well suited		Well suited	
17B:					
Evard	70	Well suited		Well suited	
Cowee	20	Well suited		Well suited	
17C:					
Evard	70	Well suited		Well suited	
Cowee	20	Well suited		Well suited	
17D:					
Evard	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Cowee	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
17E:					
Evard	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Cowee	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
18B:					
Evard	70	Well suited		Well suited	
Cowee	20	Well suited		Well suited	

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
18C:					
Evard	55	Well suited		Well suited	
Cowee	35	Well suited		Well suited	
18D:					
Evard	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Cowee	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
18E:					
Evard	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Cowee	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
19B2:					
Fairview	90	Well suited		Well suited	
19C2:					
Fairview	90	Well suited		Well suited	
19D2:					
Fairview	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
20B:					
Fairview	90	Poorly suited		Well suited	
		Rock fragments	0.50		
20C:					
Fairview	90	Poorly suited		Well suited	
		Rock fragments	0.50		
20D:					
Fairview	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
21E:					
Fairview	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Stott Knob	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
22E:					
Fairview	75	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
Stott Knob	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
23C:					
Fairystone----------	75	Poorly suited		Poorly suited	
		Rock fragments	0.50	Restrictive layer	0.50
Littlejoe-----------	20	Well suited		Well suited	
24D:					
Fairystone----------	75	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Restrictive layer	0.50
Littlejoe-----------	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
25E:					
Fairystone----------	70	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50
				Restrictive layer	0.50
Littlejoe-----------	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50
26A:					
French--------------	85	Well suited		Well suited	
27A:					
French--------------	55	Well suited		Well suited	
Dellwood------------	40	Poorly suited		Well suited	
		Rock fragments	0.50		
28D:					
Goblintown----------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Penhook-------------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
28E:					
Goblintown----------	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Penhook-------------	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
29A:					
Hatboro-------------	85	Well suited		Unsuited	
				Wetness	1.00
30F:					
Hickoryknob---------	70	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
Rhodhiss------------	15	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
31C:					
Meadowfield---------	60	Well suited		Poorly suited	
				Restrictive layer	0.50
Stott Knob----------	30	Well suited		Well suited	
31D:					
Meadowfield---------	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Restrictive layer	0.50
Stott Knob----------	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
32E:					
Meadowfield---------	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Restrictive layer	0.50
Stott Knob----------	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
32F:					
Meadowfield---------	60	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
				Restrictive layer	0.50
Stott Knob----------	20	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
33B:					
Minnieville---------	90	Well suited		Well suited	
33C:					
Minnieville---------	90	Well suited		Well suited	
33D:					
Minnieville---------	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
33E:					
Minnieville---------	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
34B:					
Minnieville---------	65	Well suited		Well suited	
Redbrush-----------	35	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
34C:					
Minnieville---------	60	Well suited		Well suited	
Redbrush-----------	40	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
34D:					
Minnieville	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Redbrush	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
35A:					
Nikwasi	55	Well suited		Unsuited	
				Wetness	1.00
Dellwood	35	Poorly suited		Well suited	
		Rock fragments	0.50		
36D:					
Peaks	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Restrictive layer	0.50
Edneyville	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
36E:					
Peaks	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Restrictive layer	0.50
Edneyville	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
37F:					
Peaks	50	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Restrictive layer	0.50
Rock outcrop	30	Not rated		Not rated	
38C:					
Penhook	55	Well suited		Well suited	
Goblintown	35	Well suited		Well suited	
39C:					
Penhook	65	Well suited		Well suited	
Strawfield	30	Well suited		Poorly suited	
				Restrictive layer	0.50
39D:					
Penhook	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Strawfield	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Restrictive layer	0.50

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
39E:					
Penhook	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Strawfield	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
				Restrictive layer	0.50
40E:					
Rhodhiss	75	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Stott Knob	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
41B:					
Saunook	85	Well suited		Well suited	
41C:					
Saunook	85	Well suited		Well suited	
41D:					
Saunook	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
42B:					
Saunook	60	Well suited		Well suited	
Thunder	30	Poorly suited		Well suited	
		Rock fragments	0.50		
42C:					
Saunook	55	Well suited		Well suited	
Thunder	35	Poorly suited		Well suited	
		Rock fragments	0.50		
42D:					
Saunook	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Thunder	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
43B:					
Thurmont	90	Well suited		Well suited	
43C:					
Thurmont	90	Well suited		Well suited	
43D:					
Thurmont	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
44C:					
Thurmont	90	Poorly suited		Well suited	
		Rock fragments	0.50		

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
44D:					
Thurmont------------	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
45B:					
Trimont-------------	60	Well suited		Well suited	
Kibler--------------	30	Well suited		Well suited	
45C:					
Trimont-------------	55	Well suited		Well suited	
Kibler--------------	35	Well suited		Well suited	
45D:					
Trimont-------------	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler--------------	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
45E:					
Trimont-------------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler--------------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
46B:					
Trimont-------------	60	Well suited		Well suited	
Kibler--------------	30	Well suited		Well suited	
46C:					
Trimont-------------	55	Well suited		Well suited	
Kibler--------------	35	Well suited		Well suited	
46D:					
Trimont-------------	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler--------------	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
46E:					
Trimont-------------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Kibler--------------	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
47C:					
Tuckasegee----------	45	Poorly suited		Well suited	
		Rock fragments	0.50		
Cullasaja-----------	40	Well suited		Well suited	

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
47D:					
Tuckasegee	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
Cullasaja	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
47E:					
Tuckasegee	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
Cullasaja	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
48:					
Udorthents	90	Not rated		Not rated	
49F:					
Widgett	50	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Restrictive layer	0.50
Kibler	20	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
50D:					
Widgett	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Restrictive layer	0.50
Trimont	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
50E:					
Widgett	55	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Restrictive layer	0.50
Trimont	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
50F:					
Widgett	50	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Restrictive layer	0.50
Trimont	20	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
51B:					
Woolwine	70	Well suited		Well suited	
Fairview	30	Well suited		Well suited	

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
51C:					
Woolwine-----------	70	Well suited		Well suited	
Fairview-----------	30	Well suited		Well suited	
51D:					
Woolwine-----------	70	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Fairview-----------	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
51E:					
Woolwine-----------	70	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Fairview-----------	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
W:					
Water---------------	100	Not rated		Not rated	

Table 9.—Forestland Management, Part V

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
1D:					
Bellspur	60	Low		Low	
		Texture/rock fragments	0.10		
Kibler	20	Low		Low	
		Texture/rock fragments	0.10		
1E:					
Bellspur	55	Low		Low	
		Texture/slope/ rock fragments	0.10		
Kibler	25	Low		Low	
		Texture/slope/ rock fragments	0.10		
2C:					
Bellspur	65	Low		Low	
		Texture/rock fragments	0.10		
Trimont	20	Low		Low	
		Texture/rock fragments	0.10		
3C:					
Bluemount	90	Moderate		Low	
		Texture/surface depth/rock fragments	0.50		
3D:					
Bluemount	90	Moderate		Low	
		Texture/surface depth/rock fragments	0.50		
3E:					
Bluemount	90	High		Low	
		Texture/slope/ surface depth/ rock fragments	1.00		
4B:					
Braddock	90	Low		Low	
		Texture/rock fragments	0.10		
4C:					
Braddock	90	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
4D:					
Braddock------------	90	Low		Low	
		Texture/rock fragments	0.10		
5B:					
Braddock------------	90	Moderate		Low	
		Texture/rock fragments	0.50		
5C:					
Braddock------------	90	Moderate		Low	
		Texture/rock fragments	0.50		
5D:					
Braddock------------	90	Moderate		Low	
		Texture/rock fragments	0.50		
6F:					
Bugley--------------	70	High		Low	
		Texture/slope/ surface depth/ rock fragments	1.00		
Littlejoe-----------	20	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
7C:					
Cliffield-----------	55	Moderate		Low	
		Texture/surface depth/rock fragments	0.50		
Evard---------------	25	Low		Low	
		Texture/surface depth/rock fragments	0.10		
7D:					
Cliffield-----------	55	Moderate		Low	
		Texture/surface depth/rock fragments	0.50		
Evard---------------	25	Low		Low	
		Texture/surface depth/rock fragments	0.10		
7E:					
Cliffield-----------	55	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
7E:					
Evard	25	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
7F:					
Cliffield	65	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
Evard	15	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
8B2:					
Clifford	90	Low		Low	
		Texture/rock fragments	0.10		
8C2:					
Clifford	90	Low		Low	
		Texture/rock fragments	0.10		
9A:					
Colvard	45	Moderate		Low	
		Texture/rock fragments	0.50		
Suches	40	Low		Low	
		Texture/rock fragments	0.10		
10A:					
Comus	65	Low		Low	
		Texture/rock fragments	0.10		
Elsinboro	20	Low		Low	
		Texture/rock fragments	0.10		
11B:					
Dillard	75	Low		Low	
		Texture/rock fragments	0.10		
12C:					
Dillard	85	Low		Low	
		Texture/rock fragments	0.10		
13B:					
Dillard	50	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
13B:					
Tugglesgap----------	30	Low		Moderate	
		Texture/rock fragments	0.10	Wetness	0.50
14C:					
Dillard-------------	50	Low		Low	
		Texture/rock fragments	0.10		
Tugglesgap----------	30	Low		Moderate	
		Texture/rock fragments	0.10	Wetness	0.50
15B:					
Dillsboro-----------	90	Low		Low	
		Texture/rock fragments	0.10		
16C:					
Dillsboro-----------	90	Low		Low	
		Texture/rock fragments	0.10		
17B:					
Evard---------------	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	20	Low		Low	
		Texture/surface depth/rock fragments	0.10		
17C:					
Evard---------------	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	20	Low		Low	
		Texture/surface depth/rock fragments	0.10		
17D:					
Evard---------------	65	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	25	Low		Low	
		Texture/surface depth/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
17E:					
Evard---------------	55	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
Cowee---------------	35	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
18B:					
Evard---------------	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	20	Low		Low	
		Texture/surface depth/rock fragments	0.10		
18C:					
Evard---------------	55	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	35	Low		Low	
		Texture/surface depth/rock fragments	0.10		
18D:					
Evard---------------	50	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Cowee---------------	40	Low		Low	
		Texture/surface depth/rock fragments	0.10		
18E:					
Evard---------------	50	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
Cowee---------------	40	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
19B2:					
Fairview------------	90	Moderate		Low	
		Texture/rock fragments	0.50		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
19C2:					
Fairview	90	Moderate		Low	
		Texture/rock fragments	0.50		
19D2:					
Fairview	90	Moderate		Low	
		Texture/rock fragments	0.50		
20B:					
Fairview	90	Low		Low	
		Texture/rock fragments	0.10		
20C:					
Fairview	90	Low		Low	
		Texture/rock fragments	0.10		
20D:					
Fairview	85	Low		Low	
		Texture/rock fragments	0.10		
21E:					
Fairview	60	Low		Low	
		Texture/rock fragments	0.10		
Stott Knob	30	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
22E:					
Fairview	75	Low		Low	
		Texture/rock fragments	0.10		
Stott Knob	15	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
23C:					
Fairystone	75	Low		Low	
		Texture/rock fragments	0.10		
Littlejoe	20	Moderate		Low	
		Texture/rock fragments	0.50		
24D:					
Fairystone	75	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
24D:					
Littlejoe-----------	20	Moderate		Low	
		Texture/rock fragments	0.50		
25E:					
Fairystone----------	70	Low		Low	
		Texture/slope/ rock fragments	0.10		
Littlejoe-----------	20	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
26A:					
French--------------	85	Moderate		Low	
		Texture/rock fragments	0.50		
27A:					
French--------------	55	Moderate		Low	
		Texture/rock fragments	0.50		
Dellwood------------	40	Low		Low	
		Texture/rock fragments	0.10		
28D:					
Goblintown----------	45	Low		Low	
		Texture/rock fragments	0.10		
Penhook-------------	45	Moderate		Low	
		Texture/rock fragments	0.50		
28E:					
Goblintown----------	55	Low		Low	
		Texture/slope/ rock fragments	0.10		
Penhook-------------	35	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
29A:					
Hatboro-------------	85	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
30F:					
Hickoryknob---------	70	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
Rhodhiss------------	15	Moderate		Low	
		Texture/slope/ rock fragments	0.50		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
31C:					
Meadowfield	60	Low		Low	
		Texture/rock fragments	0.10		
Stott Knob	30	Low		Low	
		Texture/surface depth/rock fragments	0.10		
31D:					
Meadowfield	65	Low		Low	
		Texture/rock fragments	0.10		
Stott Knob	25	Low		Low	
		Texture/surface depth/rock fragments	0.10		
32E:					
Meadowfield	65	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
Stott Knob	15	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
32F:					
Meadowfield	60	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
Stott Knob	20	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
33B:					
Minnieville	90	Low		Low	
33C:					
Minnieville	90	Low		Low	
33D:					
Minnieville	90	Low		Low	
33E:					
Minnieville	90	Low		Low	
34B:					
Minnieville	65	Low		Low	
Redbrush	35	Moderate		Low	
		Texture/rock fragments	0.50		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
34C:					
Minnieville----------	60	Low		Low	
Redbrush------------	40	Moderate		Low	
		Texture/rock fragments	0.50		
34D:					
Minnieville----------	60	Low		Low	
Redbrush------------	40	Moderate		Low	
		Texture/rock fragments	0.50		
35A:					
Nikwasi-------------	55	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
Dellwood------------	35	Low		Low	
		Texture/rock fragments	0.10		
36D:					
Peaks---------------	60	Low		Low	
		Texture/rock fragments	0.10		
Edneyville----------	30	Low		Low	
		Texture/rock fragments	0.10		
36E:					
Peaks---------------	65	Low		Low	
		Texture/slope/ rock fragments	0.10		
Edneyville----------	25	Low		Low	
		Texture/slope/ rock fragments	0.10		
37F:					
Peaks---------------	50	Low		Low	
		Texture/slope/ rock fragments	0.10		
Rock outcrop--------	30	Not rated		Not rated	
38C:					
Penhook-------------	55	Moderate		Low	
		Texture/rock fragments	0.50		
Goblintown----------	35	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
39C:					
Penhook	65	Moderate		Low	
		Texture/rock fragments	0.50		
Strawfield	30	Low		Low	
		Texture/surface depth/rock fragments	0.10		
39D:					
Penhook	65	Moderate		Low	
		Texture/rock fragments	0.50		
Strawfield	30	Low		Low	
		Texture/surface depth/rock fragments	0.10		
39E:					
Penhook	60	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
Strawfield	30	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
40E:					
Rhodhiss	75	Moderate		Low	
		Texture/slope/ rock fragments	0.50		
Stott Knob	20	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
41B:					
Saunook	85	Low		Low	
		Texture/rock fragments	0.10		
41C:					
Saunook	85	Low		Low	
		Texture/rock fragments	0.10		
41D:					
Saunook	85	Low		Low	
		Texture/rock fragments	0.10		
42B:					
Saunook	60	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
42B:					
Thunder	30	Low		Low	
		Texture/rock fragments	0.10		
42C:					
Saunook	55	Low		Low	
		Texture/rock fragments	0.10		
Thunder	35	Low		Low	
		Texture/rock fragments	0.10		
42D:					
Saunook	55	Low		Low	
		Texture/rock fragments	0.10		
Thunder	35	Low		Low	
		Texture/rock fragments	0.10		
43B:					
Thurmont	90	Low		Low	
		Texture/surface depth/rock fragments	0.10		
43C:					
Thurmont	90	Low		Low	
		Texture/surface depth/rock fragments	0.10		
43D:					
Thurmont	90	Low		Low	
		Texture/surface depth/rock fragments	0.10		
44C:					
Thurmont	90	Low		Low	
		Texture/surface depth/rock fragments	0.10		
44D:					
Thurmont	90	Low		Low	
		Texture/surface depth/rock fragments	0.10		
45B:					
Trimont	60	Low		Low	
		Texture/rock fragments	0.10		
Kibler	30	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
45C:					
Trimont	55	Low		Low	
		Texture/rock fragments	0.10		
Kibler	35	Low		Low	
		Texture/rock fragments	0.10		
45D:					
Trimont	50	Low		Low	
		Texture/rock fragments	0.10		
Kibler	40	Low		Low	
		Texture/rock fragments	0.10		
45E:					
Trimont	45	Low		Low	
		Texture/rock fragments	0.10		
Kibler	45	Low		Low	
		Texture/slope/ rock fragments	0.10		
46B:					
Trimont	60	Low		Low	
		Texture/rock fragments	0.10		
Kibler	30	Low		Low	
		Texture/rock fragments	0.10		
46C:					
Trimont	55	Low		Low	
		Texture/rock fragments	0.10		
Kibler	35	Low		Low	
		Texture/rock fragments	0.10		
46D:					
Trimont	50	Low		Low	
		Texture/rock fragments	0.10		
Kibler	40	Low		Low	
		Texture/rock fragments	0.10		
46E:					
Trimont	45	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
46E:					
Kibler	45	Low		Low	
		Texture/slope/ rock fragments	0.10		
47C:					
Tuckasegee	45	Low		Low	
		Texture/rock fragments	0.10		
Cullasaja	40	Low		Low	
		Texture/rock fragments	0.10		
47D:					
Tuckasegee	45	Low		Low	
		Texture/rock fragments	0.10		
Cullasaja	40	Low		Low	
		Texture/rock fragments	0.10		
47E:					
Tuckasegee	45	Low		Low	
		Texture/rock fragments	0.10		
Cullasaja	40	Low		Low	
		Texture/slope/ rock fragments	0.10		
48:					
Udorthents	90	Not rated		Not rated	
49F:					
Widgett	50	Moderate		Low	
		Texture/rock fragments	0.50		
Kibler	20	Low		Low	
		Texture/slope/ rock fragments	0.10		
50D:					
Widgett	60	Moderate		Low	
		Texture/rock fragments	0.50		
Trimont	20	Low		Low	
		Texture/rock fragments	0.10		
50E:					
Widgett	55	Moderate		Low	
		Texture/rock fragments	0.50		
Trimont	25	Low		Low	
		Texture/rock fragments	0.10		

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
50F:					
Widgett	50	Moderate		Low	
		Texture/rock fragments	0.50		
Trimont	20	Low		Low	
		Texture/rock fragments	0.10		
51B:					
Woolwine	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Fairview	30	Low		Low	
		Texture/rock fragments	0.10		
51C:					
Woolwine	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Fairview	30	Low		Low	
		Texture/rock fragments	0.10		
51D:					
Woolwine	70	Low		Low	
		Texture/surface depth/rock fragments	0.10		
Fairview	30	Low		Low	
		Texture/rock fragments	0.10		
51E:					
Woolwine	70	Moderate		Low	
		Texture/slope/ surface depth/ rock fragments	0.50		
Fairview	30	Low		Low	
		Texture/rock fragments	0.10		
W:					
Water	100	Not rated		Not rated	

Table 10.—Recreational Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1D:							
Bellspur	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.96
						Large stones content	0.47
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
1E:							
Bellspur	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.96
						Large stones content	0.47
Kibler	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
2C:							
Bellspur	65	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.96
						Large stones content	0.47
Trimont	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
3C:							
Bluemount	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.94
						Depth to bedrock	0.90
3D:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.94
						Depth to bedrock	0.90
3E:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.94
						Depth to bedrock	0.90

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
4B:							
Braddock------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
4C:							
Braddock------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
4D:							
Braddock------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
5B:							
Braddock------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
						Gravel content	0.07
5C:							
Braddock------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.07
5D:							
Braddock------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.07
6F:							
Bugley--------------	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Large stones content	1.00	Large stones content	1.00
		Large stones content	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Littlejoe-----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Large stones content	1.00	Large stones content	1.00
		Large stones content	1.00	Too steep	1.00	Slope	1.00
7C:							
Cliffield-----------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.35	Large stones content	0.35	Gravel content	0.99
						Depth to bedrock	0.95
Evard---------------	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
7D:							
Cliffield-----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.35	Large stones content	0.35	Gravel content	0.99
						Depth to bedrock	0.95
Evard---------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
7E:							
Cliffield-----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.35	Large stones content	0.35	Gravel content	0.99
						Depth to bedrock	0.95
Evard---------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
7F:							
Cliffield-----------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.35	Large stones content	0.35	Gravel content	0.99
						Depth to bedrock	0.95
Evard---------------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
8B2:							
Clifford------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
8C2:							
Clifford------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
9A:							
Colvard-------------	45	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01
Suches--------------	40	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
10A:							
Comus---------------	65	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.01	Flooding	0.60
		Too sandy	0.01			Too sandy	0.01
Elsinboro-----------	20	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Slope	0.12
11B:							
Dillard-------------	75	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water movement	0.15	Slope	0.88
		Slow water movement	0.15			Slow water movement	0.15
12C:							
Dillard-------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
13B:							
Dillard-------------	50	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water movement	0.15	Slope	0.88
		Slow water movement	0.15			Slow water movement	0.15

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
13B:							
Tugglesgap----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Gravel content	0.55	Gravel content	1.00
		Gravel content	0.55			Slope	0.88
14C:							
Dillard------------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
Tugglesgap----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.55	Gravel content	0.55	Gravel content	1.00
15B:							
Dillsboro-----------	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Large stones content	0.47	Gravel content	0.88
		Large stones content	0.47			Slope	0.88
						Large stones content	0.47
16C:							
Dillsboro-----------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
17B:							
Evard--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Slope	0.88
Cowee--------------	20	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.02	Gravel content	0.02	Gravel content	1.00
						Slope	0.88
						Depth to bedrock	0.46
17C:							
Evard--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
Cowee--------------	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.02	Gravel content	0.02	Gravel content	1.00
						Depth to bedrock	0.46
17D:							
Evard--------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
Cowee--------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.02	Gravel content	0.02	Gravel content	1.00
						Depth to bedrock	0.46

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
17E:							
Evard	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
Cowee	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.02	Gravel content	0.02	Gravel content	1.00
						Depth to bedrock	0.46
18B:							
Evard	70	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
						Slope	0.88
		Gravel content	0.01	Gravel content	0.01	Large stones content	0.47
Cowee	20	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
						Slope	0.88
		Gravel content	0.02	Gravel content	0.02	Large stones content	0.47
18C:							
Evard	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.01	Gravel content	0.01	Large stones content	0.47
Cowee	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.02	Gravel content	0.02	Large stones content	0.47
18D:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.01	Gravel content	0.01	Large stones content	0.47
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.02	Gravel content	0.02	Large stones content	0.47
18E:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.01	Gravel content	0.01	Large stones content	0.47

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
18E:							
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.02	Gravel content	0.02	Large stones content	0.47
19B2:							
Fairview	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
19C2:							
Fairview	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
19D2:							
Fairview	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
20B:							
Fairview	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.88
						Large stones content	0.47
20C:							
Fairview	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
20D:							
Fairview	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
21E:							
Fairview	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Stott Knob	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.03
						Depth to bedrock	0.01
22E:							
Fairview	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Stott Knob	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Depth to bedrock	0.01

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
23C:							
Fairystone----------	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Depth to bedrock	0.90
						Gravel content	0.40
Littlejoe-----------	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
24D:							
Fairystone----------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.90
						Gravel content	0.40
Littlejoe-----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
25E:							
Fairystone----------	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Large stones content	1.00	Large stones content	1.00
		Large stones content	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.90
Littlejoe-----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Large stones content	1.00	Large stones content	1.00
		Large stones content	1.00	Too steep	1.00	Slope	1.00
26A:							
French--------------	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.68	Depth to saturated zone	0.95
		Depth to saturated zone	0.95			Flooding	0.60
27A:							
French--------------	55	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.68	Flooding	1.00
		Depth to saturated zone	0.95	Flooding	0.40	Depth to saturated zone	0.95
Dellwood------------	40	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Large stones content	0.47	Flooding	0.60
		Large stones content	0.47			Large stones content	0.47
						Gravel content	0.22
28D:							
Goblintown----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.03
Penhook-------------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.01

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
28E:							
Goblintown	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.03
Penhook	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.01
29A:							
Hatboro	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
30F:							
Hickoryknob	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.95
Rhodhiss	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.04
31C:							
Meadowfield	60	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.94	Gravel content	0.94	Slope	1.00
		Slope	0.63	Slope	0.63	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.65
Stott Knob	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
31D:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.94	Gravel content	0.94	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.65
Stott Knob	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
32E:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.94	Gravel content	0.94	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.65

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
32E:							
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
32F:							
Meadowfield---------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.94	Gravel content	0.94	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.65
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
33B:							
Minnieville---------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
33C:							
Minnieville---------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
33D:							
Minnieville---------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
33E:							
Minnieville---------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
34B:							
Minnieville---------	65	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Redbrush------------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	0.88
						Slow water movement	0.60
						Depth to bedrock	0.46
34C:							
Minnieville---------	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Redbrush------------	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Depth to bedrock	0.46
34D:							
Minnieville---------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
34D:							
Redbrush	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Depth to bedrock	0.46
35A:							
Nikwasi	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
Dellwood	35	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Large stones content	0.47	Flooding	0.60
		Large stones content	0.47			Large stones content	0.47
						Gravel content	0.22
36D:							
Peaks	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.05	Gravel content	0.05	Large stones content	0.47
Edneyville	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.03	Gravel content	0.03	Large stones content	0.47
36E:							
Peaks	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.05	Gravel content	0.05	Large stones content	0.47
Edneyville	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.03	Gravel content	0.03	Large stones content	0.47
37F:							
Peaks	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.05	Gravel content	0.05	Large stones content	0.47
Rock outcrop	30	Not rated		Not rated		Not rated	
38C:							
Penhook	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.01

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
38C:							
Goblintown----------	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Depth to bedrock	0.03
39C:							
Penhook-------------	65	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.01
Strawfield----------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Depth to bedrock	0.97
39D:							
Penhook-------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.01
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.97
39E:							
Penhook-------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.01
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.97
40E:							
Rhodhiss------------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.04
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.03
						Depth to bedrock	0.01
41B:							
Saunook-------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.88
41C:							
Saunook-------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
41D:							
Saunook-------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
42B:							
Saunook-------------	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.88
						Large stones content	0.47

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
42B:							
Thunder-------------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.88
						Large stones content	0.47
						Gravel content	0.04
42C:							
Saunook-------------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Thunder-------------	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.04
42D:							
Saunook-------------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Thunder-------------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.04
43B:							
Thurmont------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
43C:							
Thurmont------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
43D:							
Thurmont------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
44C:							
Thurmont------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
44D:							
Thurmont------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
45B:							
Trimont-------------	60	Not limited		Not limited		Somewhat limited	
						Slope	0.88
						Gravel content	0.03

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
45B:							
Kibler	30	Not limited		Not limited		Somewhat limited	
						Slope	0.88
45C:							
Trimont	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.03
Kibler	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
45D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.03
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
45E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel content	0.03
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
46B:							
Trimont	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.88
						Large stones content	0.47
						Gravel content	0.03
Kibler	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.88
						Large stones content	0.47
46C:							
Trimont	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
Kibler	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
46D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
46D:							
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
46E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
47C:							
Tuckasegee	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.27
Cullasaja	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.16	Gravel content	0.16	Large stones content	0.47
47D:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.27
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.16	Gravel content	0.16	Large stones content	0.47
47E:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.27
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	1.00
		Gravel content	0.16	Gravel content	0.16	Large stones content	0.47
48:							
Udorthents	90	Not rated		Not rated		Not rated	

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
49F:							
Widgett-------------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.69	Gravel content	0.69	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Kibler--------------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
50D:							
Widgett-------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.69	Gravel content	0.69	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Trimont-------------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
50E:							
Widgett-------------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.69	Gravel content	0.69	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Trimont-------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
50F:							
Widgett-------------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel content	0.69	Gravel content	0.69	Gravel content	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
Trimont-------------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.47
						Gravel content	0.03
51B:							
Woolwine------------	70	Not limited		Not limited		Somewhat limited	
						Slope	0.88
						Depth to bedrock	0.65
						Gravel content	0.08
Fairview------------	30	Not limited		Not limited		Somewhat limited	
						Slope	0.88

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
51C:							
Woolwine	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Depth to bedrock	0.65
						Gravel content	0.08
Fairview	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
51D:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.65
						Gravel content	0.08
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
51E:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.65
						Gravel content	0.08
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
W:							
Water	100	Not rated		Not rated		Not rated	

Table 10.—Recreational Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1D:							
Bellspur	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Depth to bedrock	0.10
						Large stones content	0.03
Kibler	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.08
1E:							
Bellspur	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.10
						Large stones content	0.03
Kibler	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.08
2C:							
Bellspur	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
						Depth to bedrock	0.10
						Large stones content	0.03
Trimont	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
3C:							
Bluemount	90	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Slope	0.63
						Large stones content	0.26
3D:							
Bluemount	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.90
						Large stones content	0.26
3E:							
Bluemount	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.90
						Large stones content	0.26

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
4B:							
Braddock------------	90	Not limited		Not limited		Not limited	
4C:							
Braddock------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
4D:							
Braddock------------	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
5B:							
Braddock------------	90	Not limited		Not limited		Somewhat limited	
						Large stones content	0.32
5C:							
Braddock------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.32
5D:							
Braddock------------	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.32
6F:							
Bugley--------------	70	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Too steep	1.00
						Droughty	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
Littlejoe-----------	20	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Too steep	1.00
		Slope	1.00	Slope	1.00	Large stones content	0.03
7C:							
Cliffield-----------	55	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.35	Large stones content	0.35	Large stones content	1.00
						Droughty	0.99
						Depth to bedrock	0.95
Evard---------------	25	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.54
						Gravel content	0.01
7D:							
Cliffield-----------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.35	Too steep	1.00
		Large stones content	0.35			Large stones content	1.00
						Droughty	0.99

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
7D:							
Evard	25	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.54
						Gravel content	0.01
7E:							
Cliffield	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.35	Large stones content	0.35	Large stones content	1.00
						Droughty	0.99
Evard	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.54
						Gravel content	0.01
7F:							
Cliffield	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.35	Large stones content	0.35	Large stones content	1.00
						Droughty	0.99
Evard	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Large stones content	0.54
						Gravel content	0.01
8B2:							
Clifford	90	Not limited		Not limited		Not limited	
8C2:							
Clifford	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
9A:							
Colvard	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Flooding	0.60
						Droughty	0.09
Suches	40	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
10A:							
Comus	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Flooding	0.60
Elsinboro	20	Not limited		Not limited		Not limited	
11B:							
Dillard	75	Not limited		Not limited		Not limited	
12C:							
Dillard	85	Not limited		Not limited		Somewhat limited	
						Slope	0.63

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
13B:							
Dillard	50	Not limited		Not limited		Not limited	
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Gravel content	0.55
						Large stones content	0.32
14C:							
Dillard	50	Not limited		Not limited		Somewhat limited	
						Slope	0.63
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.63
						Gravel content	0.55
15B:							
Dillsboro	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.32
16C:							
Dillsboro	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
17B:							
Evard	70	Not limited		Not limited		Somewhat limited	
						Large stones content	0.54
						Gravel content	0.01
Cowee	20	Not limited		Not limited		Somewhat limited	
						Large stones content	0.68
						Depth to bedrock	0.46
						Gravel content	0.02
17C:							
Evard	70	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.54
						Gravel content	0.01
Cowee	20	Not limited		Not limited		Somewhat limited	
						Large stones content	0.68
						Slope	0.63
						Depth to bedrock	0.46
17D:							
Evard	65	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.54
						Gravel content	0.01

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
17D:							
Cowee	25	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.68
						Depth to bedrock	0.46
17E:							
Evard	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.54
						Gravel content	0.01
Cowee	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.68
						Depth to bedrock	0.46
18B:							
Evard	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.54
						Gravel content	0.01
Cowee	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.68
						Depth to bedrock	0.46
						Gravel content	0.02
18C:							
Evard	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
						Large stones content	0.54
						Gravel content	0.01
Cowee	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.68
						Slope	0.63
						Depth to bedrock	0.46
18D:							
Evard	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.54
						Gravel content	0.01
Cowee	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.68
						Depth to bedrock	0.46

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
18E:							
Evard---------------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.54
						Gravel content	0.01
Cowee---------------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.68
						Depth to bedrock	0.46
19B2:							
Fairview------------	90	Not limited		Not limited		Not limited	
19C2:							
Fairview------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
19D2:							
Fairview------------	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
20B:							
Fairview------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.92
20C:							
Fairview------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.92
						Slope	0.63
20D:							
Fairview------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.92
21E:							
Fairview------------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
Stott Knob----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.01
22E:							
Fairview------------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.92
Stott Knob----------	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.92
						Depth to bedrock	0.01

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
23C:							
Fairystone	75	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Slope	0.63
						Large stones content	0.01
Littlejoe	20	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.03
24D:							
Fairystone	75	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.90
						Large stones content	0.01
Littlejoe	20	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.03
25E:							
Fairystone	70	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Too steep	1.00
						Depth to bedrock	0.90
		Slope	1.00	Slope	0.78	Large stones content	0.01
Littlejoe	20	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Too steep	1.00
						Large stones content	0.03
		Slope	1.00	Slope	0.78		
26A:							
French	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Depth to saturated zone	0.68
						Flooding	0.60
27A:							
French	55	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Depth to saturated zone	0.68
Dellwood	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Droughty	0.99
						Large stones content	0.92
						Flooding	0.60
28D:							
Goblintown	45	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.03

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
28D:							
Penhook-------------	45	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.01
28E:							
Goblintown----------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.03
Penhook-------------	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.01
29A:							
Hatboro-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
30F:							
Hickoryknob---------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Depth to bedrock	0.95
						Droughty	0.20
Rhodhiss------------	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Large stones content	0.01
31C:							
Meadowfield---------	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.94
						Large stones content	0.88
						Droughty	0.71
Stott Knob----------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
						Depth to bedrock	0.01
31D:							
Meadowfield---------	65	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Gravel content	0.94
						Large stones content	0.88
Stott Knob----------	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Depth to bedrock	0.01

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
32E:							
Meadowfield---------	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.94
						Large stones content	0.88
Stott Knob----------	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.01
32F:							
Meadowfield---------	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.94
						Large stones content	0.88
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Depth to bedrock	0.01
33B:							
Minnieville---------	90	Not limited		Not limited		Not limited	
33C:							
Minnieville---------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
33D:							
Minnieville---------	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
33E:							
Minnieville---------	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
34B:							
Minnieville---------	65	Not limited		Not limited		Not limited	
Redbrush------------	35	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.46
						Droughty	0.04
						Large stones content	0.01
34C:							
Minnieville---------	60	Not limited		Not limited		Somewhat limited	
						Slope	0.63
Redbrush------------	40	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to bedrock	0.46
						Droughty	0.04

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
34D:							
Minnieville---------	60	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
Redbrush------------	40	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.46
						Droughty	0.04
35A:							
Nikwasi-------------	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
						Flooding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
Dellwood------------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Droughty	0.99
						Large stones content	0.92
						Flooding	0.60
36D:							
Peaks---------------	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Droughty	0.65
						Depth to bedrock	0.16
Edneyville----------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.05
						Gravel content	0.03
36E:							
Peaks---------------	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Droughty	0.65
						Depth to bedrock	0.16
Edneyville----------	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.05
						Gravel content	0.03
37F:							
Peaks---------------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Droughty	0.65
						Depth to bedrock	0.16
Rock outcrop--------	30	Not rated		Not rated		Not rated	
38C:							
Penhook-------------	55	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.01

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
38C:							
Goblintown----------	35	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to bedrock	0.03
39C:							
Penhook-------------	65	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.01
Strawfield----------	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.97
						Slope	0.63
						Droughty	0.03
39D:							
Penhook-------------	65	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.01
Strawfield----------	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.97
						Droughty	0.03
39E:							
Penhook-------------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.01
Strawfield----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.97
						Droughty	0.03
40E:							
Rhodhiss------------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.01
Stott Knob----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.01
41B:							
Saunook-------------	85	Not limited		Not limited		Not limited	
41C:							
Saunook-------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.63
41D:							
Saunook-------------	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
42B:							
Saunook-------------	60	Somewhat limited		Somewhat limited		Not limited	
		Large stones content	0.47	Large stones content	0.47		
Thunder-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	1.00
						Droughty	0.69
42C:							
Saunook-------------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
Thunder-------------	35	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	1.00
						Droughty	0.69
						Slope	0.63
42D:							
Saunook-------------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47				
Thunder-------------	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	1.00
						Droughty	0.69
43B:							
Thurmont------------	90	Not limited		Not limited		Somewhat limited	
						Large stones content	0.01
43C:							
Thurmont------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.01
43D:							
Thurmont------------	90	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.01
44C:							
Thurmont------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.92
						Slope	0.63

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
44D:							
Thurmont	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.92
45B:							
Trimont	60	Not limited		Not limited		Not limited	
Kibler	30	Not limited		Not limited		Somewhat limited	
						Large stones content	0.08
45C:							
Trimont	55	Not limited		Not limited		Somewhat limited	
						Slope	0.63
Kibler	35	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Large stones content	0.08
45D:							
Trimont	50	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
Kibler	40	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Large stones content	0.08
45E:							
Trimont	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
Kibler	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Large stones content	0.08
46B:							
Trimont	60	Somewhat limited		Somewhat limited		Not limited	
		Large stones content	0.47	Large stones content	0.47		
Kibler	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.08
46C:							
Trimont	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
Kibler	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
						Large stones content	0.08

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
46D:							
Trimont-------------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47				
Kibler--------------	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.08
46E:							
Trimont-------------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47		
Kibler--------------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.08
47C:							
Tuckasegee----------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.95
						Slope	0.63
Cullasaja-----------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Large stones content	0.47	Large stones content	0.47	Slope	0.63
						Gravel content	0.16
						Droughty	0.09
47D:							
Tuckasegee----------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	0.95
Cullasaja-----------	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Gravel content	0.16
						Droughty	0.09
47E:							
Tuckasegee----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.95
Cullasaja-----------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Gravel content	0.16
						Droughty	0.09
48:							
Udorthents----------	90	Not rated		Not rated		Not rated	

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
49F:							
Widgett	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	1.00
						Gravel content	0.69
Kibler	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	0.08
50D:							
Widgett	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47			Large stones content	1.00
						Gravel content	0.69
Trimont	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Large stones content	0.47	Too steep	1.00
		Large stones content	0.47				
50E:							
Widgett	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	1.00
						Gravel content	0.69
Trimont	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47		
50F:							
Widgett	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47	Large stones content	1.00
						Gravel content	0.69
Trimont	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Large stones content	0.47	Large stones content	0.47		
51B:							
Woolwine	70	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.65
						Droughty	0.02
Fairview	30	Not limited		Not limited		Not limited	
51C:							
Woolwine	70	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.65
						Slope	0.63
						Droughty	0.02

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
51C:							
Fairview	30	Not limited		Not limited		Somewhat limited	
						Slope	0.63
51D:							
Woolwine	70	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.65
						Droughty	0.02
Fairview	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
51E:							
Woolwine	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
						Depth to bedrock	0.65
						Droughty	0.02
Fairview	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Too steep	1.00
W:							
Water	100	Not rated		Not rated		Not rated	

Table 11.—Building Site Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1D:							
Bellspur	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.99		
				Depth to soft bedrock	0.10		
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1E:							
Bellspur	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.99		
				Depth to soft bedrock	0.10		
Kibler	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
2C:							
Bellspur	65	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to hard bedrock	0.99	Slope	1.00
				Slope	0.63		
				Depth to soft bedrock	0.10		
Trimont	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
3C:							
Bluemount	90	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.90
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3D:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3E:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
4B:							
Braddock	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12
4C:							
Braddock	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
4D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
5B:							
Braddock	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12
5C:							
Braddock	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
5D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
6F:							
Bugley	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
7C:							
Cliffield	55	Very limited		Very limited		Very limited	
		Large stones content	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Large stones content	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.95
Evard	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
7D:							
Cliffield	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	1.00	Depth to hard bedrock	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Depth to hard bedrock	0.95

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
7D:							
Evard	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
7E:							
Cliffield	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	1.00	Depth to hard bedrock	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Depth to hard bedrock	0.95
Evard	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
7F:							
Cliffield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	1.00	Depth to hard bedrock	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Depth to hard bedrock	0.95
Evard	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
8B2:							
Clifford	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
8C2:							
Clifford	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
9A:							
Colvard	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Suches	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.99		
10A:							
Comus	65	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Elsinboro	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
11B:							
Dillard	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.99	Slope	0.12
12C:							
Dillard	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
13B:							
Dillard	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.99	Slope	0.12
Tugglesgap	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Large stones content	0.01	Large stones content	0.01	Slope	0.12
14C:							
Dillard	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	1.00
		Large stones content	0.01	Large stones content	0.01	Large stones content	0.01
15B:							
Dillsboro	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
						Slope	0.12
16C:							
Dillsboro	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
17B:							
Evard	70	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Cowee	20	Not limited		Somewhat limited		Somewhat limited	
				Depth to hard bedrock	0.93	Slope	0.12
				Depth to soft bedrock	0.46		
17C:							
Evard	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Cowee	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to hard bedrock	0.93	Slope	1.00
				Slope	0.63		
				Depth to soft bedrock	0.46		
17D:							
Evard	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
17D:							
Cowee	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.93		
				Depth to soft bedrock	0.46		
17E:							
Evard	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Cowee	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.93		
				Depth to soft bedrock	0.46		
18B:							
Evard	70	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Cowee	20	Not limited		Somewhat limited		Somewhat limited	
				Depth to hard bedrock	0.93	Slope	0.12
				Depth to soft bedrock	0.46		
18C:							
Evard	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Cowee	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to hard bedrock	0.93	Slope	1.00
				Slope	0.63		
				Depth to soft bedrock	0.46		
18D:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.93		
				Depth to soft bedrock	0.46		
18E:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.93		
				Depth to soft bedrock	0.46		

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
19B2:							
Fairview------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
19C2:							
Fairview------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
19D2:							
Fairview------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
20B:							
Fairview------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
20C:							
Fairview------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
20D:							
Fairview------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
21E:							
Fairview------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Stott Knob----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		
22E:							
Fairview------------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		
23C:							
Fairystone----------	75	Somewhat limited		Very limited		Very limited	
		Slope	0.63	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	0.50	Depth to soft bedrock	0.90	Shrink-swell	0.50
		Depth to hard bedrock	0.35	Slope	0.63	Depth to hard bedrock	0.35
Littlejoe-----------	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
24D:							
Fairystone----------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Depth to hard bedrock	1.00	Shrink-swell	0.50
		Depth to hard bedrock	0.35	Depth to soft bedrock	0.90	Depth to hard bedrock	0.35

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
24D:							
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
25E:							
Fairystone	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Depth to hard bedrock	1.00	Shrink-swell	0.50
		Depth to hard bedrock	0.35	Depth to soft bedrock	0.90	Depth to hard bedrock	0.35
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
26A:							
French	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Depth to saturated zone	0.95
27A:							
French	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Depth to saturated zone	0.95
Dellwood	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Large stones content	0.14	Depth to saturated zone	0.99	Large stones content	0.14
				Large stones content	0.14		
28D:							
Goblintown	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.03		
Penhook	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
28E:							
Goblintown	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.03		
Penhook	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
29A:							
Hatboro	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
30F:							
Hickoryknob	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.06	Depth to hard bedrock	1.00	Depth to hard bedrock	0.06
				Depth to soft bedrock	0.95		
Rhodhiss	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
31C:							
Meadowfield	60	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.64	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.64
Stott Knob	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Depth to soft bedrock	0.01		
31D:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.64	Depth to hard bedrock	1.00	Depth to hard bedrock	0.64
Stott Knob	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		
32E:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.64	Depth to hard bedrock	1.00	Depth to hard bedrock	0.64
Stott Knob	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		
32F:							
Meadowfield	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.64	Depth to hard bedrock	1.00	Depth to hard bedrock	0.64
Stott Knob	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
33B:							
Minnieville	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12
33C:							
Minnieville	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
33D:							
Minnieville	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
33E:							
Minnieville	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
34B:							
Minnieville	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12
Redbrush	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Depth to hard bedrock	0.01	Depth to hard bedrock	1.00	Slope	0.12
				Depth to soft bedrock	0.46	Depth to hard bedrock	0.01
34C:							
Minnieville	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Redbrush	40	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Slope	0.63	Depth to hard bedrock	1.00	Shrink-swell	1.00
		Depth to hard bedrock	0.01	Slope	0.63	Depth to hard bedrock	0.01
34D:							
Minnieville	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Redbrush	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Depth to hard bedrock	0.01	Depth to hard bedrock	1.00	Depth to hard bedrock	0.01
35A:							
Nikwasi	55	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
35A:							
Dellwood	35	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Large stones content	0.14	Depth to saturated zone	0.99	Large stones content	0.14
				Large stones content	0.14		
36D:							
Peaks	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.19	Depth to hard bedrock	1.00	Large stones content	0.19
		Depth to hard bedrock	0.15	Large stones content	0.19	Depth to hard bedrock	0.15
Edneyville	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
36E:							
Peaks	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.19	Depth to hard bedrock	1.00	Large stones content	0.19
		Depth to hard bedrock	0.15	Large stones content	0.19	Depth to hard bedrock	0.15
Edneyville	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
37F:							
Peaks	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.19	Depth to hard bedrock	1.00	Large stones content	0.19
		Depth to hard bedrock	0.15	Large stones content	0.19	Depth to hard bedrock	0.15
Rock outcrop	30	Not rated		Not rated		Not rated	
38C:							
Penhook	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Goblintown	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.03		
39C:							
Penhook	65	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
35A:							
Strawfield----------	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.97
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
39D:							
Penhook-------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
39E:							
Penhook-------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
40E:							
Rhodhiss------------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		
41B:							
Saunook-------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
41C:							
Saunook-------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
41D:							
Saunook-------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
42B:							
Saunook-------------	60	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Thunder-------------	30	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
						Slope	0.12

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
42C:							
Saunook	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Thunder	35	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Large stones content	1.00
42D:							
Saunook	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Thunder	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
43B:							
Thurmont	90	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.24	Slope	0.12
43C:							
Thurmont	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Depth to saturated zone	0.24		
43D:							
Thurmont	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.24		
44C:							
Thurmont	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Depth to saturated zone	0.24		
44D:							
Thurmont	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.24		
45B:							
Trimont	60	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Kibler	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12
45C:							
Trimont	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Kibler	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
45D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
45E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
46B:							
Trimont	60	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Kibler	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12
46C:							
Trimont	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Kibler	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
46D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
46E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
47C:							
Tuckasegee	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Cullasaja	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
47D:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
47E:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
47E:							
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
48:							
Udorthents	90	Not rated		Not rated		Not rated	
49F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.86	Depth to hard bedrock	1.00	Large stones content	0.86
		Depth to hard bedrock	0.10	Large stones content	0.86	Depth to hard bedrock	0.10
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
50D:							
Widgett	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.86	Depth to hard bedrock	1.00	Large stones content	0.86
		Depth to hard bedrock	0.10	Large stones content	0.86	Depth to hard bedrock	0.10
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
50E:							
Widgett	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.86	Depth to hard bedrock	1.00	Large stones content	0.86
		Depth to hard bedrock	0.10	Large stones content	0.86	Depth to hard bedrock	0.10
Trimont	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
50F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Large stones content	0.86	Depth to hard bedrock	1.00	Large stones content	0.86
		Depth to hard bedrock	0.10	Large stones content	0.86	Depth to hard bedrock	0.10
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
51B:							
Woolwine	70	Not limited		Somewhat limited		Somewhat limited	
				Depth to hard bedrock	0.96	Slope	0.12
				Depth to soft bedrock	0.64		
Fairview	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12

Table 11.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
51C:							
Woolwine	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to hard bedrock	0.96	Slope	1.00
				Depth to soft bedrock	0.64		
				Slope	0.63		
Fairview	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
51D:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.96		
				Depth to soft bedrock	0.64		
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
51E:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to hard bedrock	0.96		
				Depth to soft bedrock	0.64		
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
W:							
Water	100	Not rated		Not rated		Not rated	

Table 11.—Building Site Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1D:							
Bellspur	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.10
				Depth to hard bedrock	0.99	Large stones content	0.03
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
1E:							
Bellspur	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.10
				Depth to hard bedrock	0.99	Large stones content	0.03
Kibler	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
2C:							
Bellspur	65	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Depth to hard bedrock	0.99	Depth to bedrock	0.10
				Slope	0.63	Large stones content	0.03
Trimont	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		
3C:							
Bluemount	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Slope	0.63	Slope	0.63	Slope	0.63
		Shrink-swell	0.50	Large stones content	0.18	Large stones content	0.26
3D:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.90	Too steep	1.00	Depth to bedrock	0.90
		Shrink-swell	0.50	Large stones content	0.18	Large stones content	0.26

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
3E:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.90	Too steep	1.00	Depth to bedrock	0.90
		Shrink-swell	0.50	Large stones content	0.18	Large stones content	0.26
4B:							
Braddock	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
4C:							
Braddock	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
4D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
5B:							
Braddock	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Large stones content	0.32
		Shrink-swell	0.50	Cutbanks cave	0.10		
5C:							
Braddock	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.50	Large stones content	0.32
		Shrink-swell	0.50	Cutbanks cave	0.10		
5D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.50	Large stones content	0.32
		Shrink-swell	0.50	Cutbanks cave	0.10		
6F:							
Bugley	70	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Depth to soft bedrock	1.00	Droughty	1.00
		Depth to soft bedrock	1.00	Too steep	1.00	Depth to bedrock	1.00
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.03
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
7C:							
Cliffield-----------	55	Very limited		Very limited		Very limited	
		Large stones content	1.00	Depth to hard bedrock	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Droughty	0.99
		Slope	0.63	Slope	0.63	Depth to bedrock	0.95
Evard---------------	25	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Large stones content	0.54
						Gravel content	0.01
7D:							
Cliffield-----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	1.00	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Droughty	0.99
Evard---------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
7E:							
Cliffield-----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	1.00	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Droughty	0.99
Evard---------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
7F:							
Cliffield-----------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	1.00	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.95	Large stones content	1.00	Droughty	0.99
Evard---------------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
8B2:							
Clifford------------	90	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.10	Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
8C2:							
Clifford	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Low strength	0.10	Cutbanks cave	0.10		
9A:							
Colvard	45	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.09
Suches	40	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.99	Flooding	0.60
		Low strength	0.78	Flooding	0.60		
				Cutbanks cave	0.10		
10A:							
Comus	65	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
				Flooding	0.60		
Elsinboro	20	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Cutbanks cave	0.10		
11B:							
Dillard	75	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Depth to saturated zone	0.99		
				Too clayey	0.12		
				Cutbanks cave	0.10		
12C:							
Dillard	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	0.63
				Slope	0.63		
				Too clayey	0.12		
13B:							
Dillard	50	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Depth to saturated zone	0.99		
				Too clayey	0.12		
				Cutbanks cave	0.10		
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	0.10	Gravel content	0.55
		Flooding	0.40	Large stones content	0.01	Large stones content	0.32
14C:							
Dillard	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	0.63
				Slope	0.63		
				Too clayey	0.12		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
14C:							
Tugglesgap----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10	Gravel content	0.55
15B:							
Dillsboro-----------	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.12	Large stones content	0.32
		Flooding	0.40	Cutbanks cave	0.10		
16C:							
Dillsboro-----------	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.12		
				Cutbanks cave	0.10		
17B:							
Evard---------------	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
Cowee---------------	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
						Gravel content	0.02
				Cutbanks cave	0.10		
17C:							
Evard---------------	70	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Large stones content	0.54
						Gravel content	0.01
Cowee---------------	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to hard bedrock	0.93	Large stones content	0.68
		Frost action	0.50	Slope	0.63	Slope	0.63
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
17D:							
Evard---------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
Cowee---------------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
17E:							
Evard	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
Cowee	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
18B:							
Evard	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
Cowee	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
						Gravel content	0.02
				Cutbanks cave	0.10		
18C:							
Evard	55	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Large stones content	0.54
						Gravel content	0.01
Cowee	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to hard bedrock	0.93	Large stones content	0.68
		Frost action	0.50	Slope	0.63	Slope	0.63
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
18D:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
18E:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Large stones content	0.54
						Gravel content	0.01

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
18E:							
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.93	Large stones content	0.68
				Depth to soft bedrock	0.46	Depth to bedrock	0.46
19B2:							
Fairview	90	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
19C2:							
Fairview	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
19D2:							
Fairview	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
20B:							
Fairview	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Low strength	0.10	Too clayey	0.32	Large stones content	0.92
				Cutbanks cave	0.10		
20C:							
Fairview	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Large stones content	0.92
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10	Slope	0.63
20D:							
Fairview	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32	Large stones content	0.92
				Cutbanks cave	0.10		
21E:							
Fairview	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
Stott Knob	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		
22E:							
Fairview	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32	Large stones content	0.92
				Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
22E:							
Stott Knob	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Large stones content	0.92
				Depth to soft bedrock	0.01	Depth to bedrock	0.01
23C:							
Fairystone	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Shrink-swell	0.50	Depth to soft bedrock	0.90	Slope	0.63
		Depth to hard bedrock	0.35	Slope	0.63	Large stones content	0.01
Littlejoe	20	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.32	Large stones content	0.03
		Shrink-swell	0.50	Cutbanks cave	0.10		
24D:							
Fairystone	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Shrink-swell	0.50	Too steep	1.00	Depth to bedrock	0.90
		Depth to hard bedrock	0.35	Depth to soft bedrock	0.90	Large stones content	0.01
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.03
		Shrink-swell	0.50	Cutbanks cave	0.10		
25E:							
Fairystone	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Shrink-swell	0.50	Too steep	1.00	Depth to bedrock	0.90
		Depth to hard bedrock	0.35	Depth to soft bedrock	0.90	Large stones content	0.01
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.03
		Shrink-swell	0.50	Cutbanks cave	0.10		
26A:							
French	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.68
		Depth to saturated zone	0.68	Cutbanks cave	1.00	Flooding	0.60
				Flooding	0.60		
27A:							
French	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.68	Cutbanks cave	1.00	Depth to saturated zone	0.68
				Flooding	0.80		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
27A:							
Dellwood------------	40	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Droughty	0.99
		Large stones content	0.14	Depth to saturated zone	0.99	Large stones content	0.92
				Flooding	0.60	Flooding	0.60
28D:							
Goblintown----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	0.50	Too clayey	0.12	Depth to bedrock	0.03
				Cutbanks cave	0.10		
Penhook-------------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
28E:							
Goblintown----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	0.50	Too clayey	0.12	Depth to bedrock	0.03
				Cutbanks cave	0.10		
Penhook-------------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
29A:							
Hatboro-------------	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
30F:							
Hickoryknob---------	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.06	Too steep	1.00	Depth to bedrock	0.95
				Depth to soft bedrock	0.95	Droughty	0.20
Rhodhiss------------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10	Large stones content	0.01
31C:							
Meadowfield---------	60	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.64	Depth to hard bedrock	1.00	Gravel content	0.94
		Slope	0.63	Cutbanks cave	1.00	Large stones content	0.88
				Slope	0.63	Droughty	0.71
Stott Knob----------	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
31D:							
Meadowfield----------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.64	Too steep	1.00	Gravel content	0.94
				Cutbanks cave	1.00	Large stones content	0.88
Stott Knob----------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		
32E:							
Meadowfield----------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.64	Too steep	1.00	Gravel content	0.94
				Cutbanks cave	1.00	Large stones content	0.88
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		
32F:							
Meadowfield----------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.64	Too steep	1.00	Gravel content	0.94
				Cutbanks cave	1.00	Large stones content	0.88
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		
33B:							
Minnieville----------	90	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Too clayey	0.76		
		Low strength	0.10	Cutbanks cave	0.10		
33C:							
Minnieville----------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Too clayey	0.76	Slope	0.63
		Shrink-swell	0.50	Slope	0.63		
		Low strength	0.10	Cutbanks cave	0.10		
33D:							
Minnieville----------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	0.50	Too clayey	0.76		
		Low strength	0.10	Cutbanks cave	0.10		
33E:							
Minnieville----------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	0.50	Too clayey	0.76		
		Low strength	0.10	Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
34B:							
Minnieville---------	65	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Too clayey	0.76		
		Low strength	0.10	Cutbanks cave	0.10		
Redbrush------------	35	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Low strength	1.00	Depth to soft bedrock	0.46	Droughty	0.04
		Depth to hard bedrock	0.01	Too clayey	0.32	Large stones content	0.01
34C:							
Minnieville---------	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Too clayey	0.76	Slope	0.63
		Shrink-swell	0.50	Slope	0.63		
		Low strength	0.10	Cutbanks cave	0.10		
Redbrush------------	40	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Slope	0.63
		Low strength	1.00	Slope	0.63	Depth to bedrock	0.46
		Slope	0.63	Depth to soft bedrock	0.46	Droughty	0.04
34D:							
Minnieville---------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Shrink-swell	0.50	Too clayey	0.76		
		Low strength	0.10	Cutbanks cave	0.10		
Redbrush------------	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Shrink-swell	1.00	Too steep	1.00	Depth to bedrock	0.46
		Low strength	1.00	Depth to soft bedrock	0.46	Droughty	0.04
35A:							
Nikwasi-------------	55	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
Dellwood------------	35	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Droughty	0.99
		Large stones content	0.14	Depth to saturated zone	0.99	Large stones content	0.92
				Flooding	0.60	Flooding	0.60
36D:							
Peaks---------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Droughty	0.65
		Large stones content	0.19	Large stones content	0.19	Depth to bedrock	0.16

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
36D:							
Edneyville----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.05
						Gravel content	0.03
36E:							
Peaks---------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Droughty	0.65
		Large stones content	0.19	Large stones content	0.19	Depth to bedrock	0.16
Edneyville----------	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.05
						Gravel content	0.03
37F:							
Peaks---------------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Frost action	0.50	Too steep	1.00	Droughty	0.65
		Large stones content	0.19	Large stones content	0.19	Depth to bedrock	0.16
Rock outcrop--------	30	Not rated		Not rated		Not rated	
38C:							
Penhook-------------	55	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
Goblintown----------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Shrink-swell	0.50	Too clayey	0.12	Depth to bedrock	0.03
				Cutbanks cave	0.10		
39C:							
Penhook-------------	65	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
Strawfield----------	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Depth to hard bedrock	0.97	Slope	0.63	Slope	0.63
		Slope	0.63	Too clayey	0.32	Droughty	0.03
39D:							
Penhook-------------	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
39D:							
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Low strength	1.00	Too steep	1.00	Depth to bedrock	0.97
		Depth to hard bedrock	0.97	Too clayey	0.32	Droughty	0.03
39E:							
Penhook-------------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	1.00	Too clayey	0.32	Large stones content	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
Strawfield----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Low strength	1.00	Too steep	1.00	Depth to bedrock	0.97
		Depth to hard bedrock	0.97	Too clayey	0.32	Droughty	0.03
40E:							
Rhodhiss------------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10	Large stones content	0.01
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Depth to bedrock	0.01
				Depth to soft bedrock	0.01		
41B:							
Saunook-------------	85	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
41C:							
Saunook-------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		
41D:							
Saunook-------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
42B:							
Saunook-------------	60	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Thunder-------------	30	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.69
42C:							
Saunook-------------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
42C:							
Thunder-------------	35	Very limited		Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
		Slope	0.63	Slope	0.63	Droughty	0.69
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
42D:							
Saunook-------------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
Thunder-------------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.69
43B:							
Thurmont------------	90	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.24	Large stones content	0.01
				Cutbanks cave	0.10		
43C:							
Thurmont------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Depth to saturated zone	0.24	Large stones content	0.01
				Cutbanks cave	0.10		
43D:							
Thurmont------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Depth to saturated zone	0.24	Large stones content	0.01
				Cutbanks cave	0.10		
44C:							
Thurmont------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Large stones content	0.92
				Depth to saturated zone	0.24	Slope	0.63
				Cutbanks cave	0.10		
44D:							
Thurmont------------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Depth to saturated zone	0.24	Large stones content	0.92
				Cutbanks cave	0.10		
45B:							
Trimont-------------	60	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Kibler--------------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
45C:							
Trimont	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		
Kibler	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
45D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
45E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
46B:							
Trimont	60	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Kibler	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
46C:							
Trimont	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		
Kibler	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
46D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
46E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08
47C:							
Tuckasegee	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Large stones content	0.95
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
Cullasaja	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10	Gravel content	0.16
						Droughty	0.09
47D:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.95
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Gravel content	0.16
						Droughty	0.09
47E:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.95
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Gravel content	0.16
						Droughty	0.09
48:							
Udorthents	90	Not rated		Not rated		Not rated	
49F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	0.86	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.10	Large stones content	0.86	Gravel content	0.69
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Large stones content	0.08

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
50D:							
Widgett	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	0.86	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.10	Large stones content	0.86	Gravel content	0.69
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
50E:							
Widgett	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	0.86	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.10	Large stones content	0.86	Gravel content	0.69
Trimont	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
50F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Large stones content	0.86	Too steep	1.00	Large stones content	1.00
		Depth to hard bedrock	0.10	Large stones content	0.86	Gravel content	0.69
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	0.10		
51B:							
Woolwine	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	0.96	Depth to bedrock	0.65
		Low strength	0.10	Depth to soft bedrock	0.64	Droughty	0.02
				Too clayey	0.32		
Fairview	30	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
51C:							
Woolwine	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to hard bedrock	0.96	Depth to bedrock	0.65
		Frost action	0.50	Depth to soft bedrock	0.64	Slope	0.63
		Low strength	0.10	Slope	0.63	Droughty	0.02
Fairview	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		

Table 11.—Building Site Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
51D:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.96	Depth to bedrock	0.65
		Low strength	0.10	Depth to soft bedrock	0.64	Droughty	0.02
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
51E:							
Woolwine	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to hard bedrock	0.96	Depth to bedrock	0.65
		Low strength	0.10	Depth to soft bedrock	0.64	Droughty	0.02
Fairview	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Low strength	0.10	Too clayey	0.32		
				Cutbanks cave	0.10		
W:							
Water	100	Not rated		Not rated		Not rated	

Table 12.—Sanitary Facilities, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
1D:					
Bellspur	60	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.99
Kibler	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to bedrock	0.59	Depth to soft bedrock	0.13
1E:					
Bellspur	55	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.99
Kibler	25	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to bedrock	0.59	Depth to soft bedrock	0.13
2C:					
Bellspur	65	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.99
Trimont	20	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
3C:					
Bluemount	90	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
3D:					
Bluemount	90	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
3E:					
Bluemount-----------	90	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
4B:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Seepage	0.98
				Slope	0.68
4C:					
Braddock------------	90	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.98
4D:					
Braddock------------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.98
5B:					
Braddock------------	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Seepage	0.98
				Slope	0.68
5C:					
Braddock------------	90	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.98
5D:					
Braddock------------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.98
6F:					
Bugley--------------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Too steep	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Depth to bedrock	0.94	Depth to soft bedrock	0.84
		Slow water movement	0.68	Seepage	0.32

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
7C:					
Cliffield	55	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Large stones content	1.00	Slope	1.00
		Slope	0.63	Large stones content	1.00
Evard	25	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
7D:					
Cliffield	55	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	1.00
Evard	25	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
7E:					
Cliffield	55	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	1.00
Evard	25	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
7F:					
Cliffield	65	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	1.00
Evard	15	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
8B2:					
Clifford	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
8C2:					
Clifford	90	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
9A:					
Colvard	45	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Suches	40	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
10A:					
Comus	65	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.46		
Elsinboro	20	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Flooding	0.40
		Slow water movement	0.50	Slope	0.08
		Flooding	0.40		
11B:					
Dillard	75	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	0.68
				Seepage	0.50
		Flooding	0.40		
12C:					
Dillard	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
				Seepage	0.50
		Slope	0.63		
13B:					
Dillard	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	0.68
				Seepage	0.50
		Flooding	0.40		

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
13B:					
Tugglesgap----------	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.68
		Slow water movement	0.50		
14C:					
Dillard------------	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
				Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
		Slope	0.63		
Tugglesgap----------	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
				Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slope	0.63		
15B:					
Dillsboro-----------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.68
		Slow water movement	0.50	Flooding	0.40
		Flooding	0.40		
16C:					
Dillsboro-----------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	0.63		
		Slow water movement	0.50		
17B:					
Evard---------------	70	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
Cowee---------------	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
				Slope	0.68
17C:					
Evard---------------	70	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
17C:					
Cowee	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
17D:					
Evard	65	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Cowee	25	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
17E:					
Evard	55	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Cowee	35	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
18B:					
Evard	70	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
Cowee	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
				Slope	0.68
18C:					
Evard	55	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Cowee	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
18D:					
Evard	50	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Cowee	40	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
18E:					
Evard	50	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Cowee	40	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.93
19B2:					
Fairview	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Slope	0.68
19C2:					
Fairview	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
		Slow water movement	0.50		
19D2:					
Fairview	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
20B:					
Fairview	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Slope	0.68

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
20C:					
Fairview-----------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
		Slow water movement	0.50		
20D:					
Fairview-----------	85	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
21E:					
Fairview-----------	60	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
Stott Knob----------	30	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
22E:					
Fairview-----------	75	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
Stott Knob----------	15	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
23C:					
Fairystone----------	75	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Depth to soft bedrock	1.00
		Slow water movement	0.50	Slope	1.00
Littlejoe-----------	20	Somewhat limited		Very limited	
		Depth to bedrock	0.94	Slope	1.00
		Slow water movement	0.68	Depth to soft bedrock	0.84
		Slope	0.63	Seepage	0.32

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
24D:					
Fairystone----------	75	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	0.50	Slope	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Depth to bedrock	0.94	Depth to soft bedrock	0.84
		Slow water movement	0.68	Seepage	0.32
25E:					
Fairystone----------	70	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	0.50	Slope	1.00
Littlejoe-----------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Depth to bedrock	0.94	Depth to soft bedrock	0.84
		Slow water movement	0.68	Seepage	0.32
26A:					
French--------------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
27A:					
French--------------	55	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
Dellwood------------	40	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
28D:					
Goblintown----------	45	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
28D:					
Penhook-------------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
28E:					
Goblintown----------	55	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Penhook-------------	35	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
29A:					
Hatboro-------------	85	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
30F:					
Hickoryknob---------	70	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Slope	1.00
Rhodhiss------------	15	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
31C:					
Meadowfield---------	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.02	Seepage	0.98
Stott Knob----------	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
31D:					
Meadowfield---------	65	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.02	Seepage	0.98

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
31D:					
Stott Knob----------	25	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
32E:					
Meadowfield---------	65	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.02	Seepage	0.98
Stott Knob----------	15	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
32F:					
Meadowfield---------	60	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.02	Seepage	0.98
Stott Knob----------	20	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
33B:					
Minnieville---------	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
33C:					
Minnieville---------	90	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
33D:					
Minnieville---------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
33E:					
Minnieville---------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
34B:					
Minnieville---------	65	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
34B:					
Redbrush------------	35	Very limited		Very limited	
		Slow water movement	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Slope	0.68
34C:					
Minnieville---------	60	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Redbrush------------	40	Very limited		Very limited	
		Slow water movement	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63		
				Slope	1.00
34D:					
Minnieville---------	60	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Redbrush------------	40	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00		
				Slope	1.00
35A:					
Nikwasi-------------	55	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
Dellwood------------	35	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
		Seepage, bottom layer	1.00		
36D:					
Peaks---------------	60	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Seepage, bottom layer	1.00		
				Slope	1.00
		Depth to bedrock	1.00	Seepage	1.00
Edneyville----------	30	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
36E:					
Peaks	65	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Depth to bedrock	1.00	Seepage	1.00
Edneyville	25	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
37F:					
Peaks	50	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Depth to bedrock	1.00	Seepage	1.00
Rock outcrop	30	Not rated		Not rated	
38C:					
Penhook	55	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Goblintown	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
39C:					
Penhook	65	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Strawfield	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	0.50
39D:					
Penhook	65	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Strawfield	30	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
				Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
39E:					
Penhook	60	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Strawfield	30	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
				Seepage	0.50
40E:					
Rhodhiss	75	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
Stott Knob	20	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
41B:					
Saunook	85	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
41C:					
Saunook	85	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
41D:					
Saunook	85	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
42B:					
Saunook	60	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
Thunder	30	Very limited		Very limited	
		Large stones content	1.00	Large stones content	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.68
42C:					
Saunook	55	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
42C:					
Thunder-------------	35	Very limited		Very limited	
		Large stones content	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Large stones content	1.00
		Slope	0.63	Seepage	1.00
42D:					
Saunook-------------	55	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Thunder-------------	35	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
43B:					
Thurmont------------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.65	Slope	0.68
		Slow water movement	0.50	Depth to saturated zone	0.02
43C:					
Thurmont------------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Depth to saturated zone	0.65	Seepage	1.00
		Slope	0.63	Depth to saturated zone	0.02
43D:					
Thurmont------------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.65	Depth to saturated zone	0.02
44C:					
Thurmont------------	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Depth to saturated zone	0.65	Seepage	1.00
		Slope	0.63	Depth to saturated zone	0.02
44D:					
Thurmont------------	90	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.65	Depth to saturated zone	0.02

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45B:					
Trimont-------------	60	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
Kibler--------------	30	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.68
		Depth to bedrock	0.59	Depth to soft bedrock	0.13
		Slow water movement	0.50		
45C:					
Trimont-------------	55	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	35	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	0.63	Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
45D:					
Trimont-------------	50	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	40	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
45E:					
Trimont-------------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
46B:					
Trimont-------------	60	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.68
				Seepage	0.50
Kibler--------------	30	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.68
		Depth to bedrock	0.59	Depth to soft bedrock	0.13
		Slow water movement	0.50		

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
46C:					
Trimont-------------	55	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	35	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	0.63	Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
46D:					
Trimont-------------	50	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	40	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
46E:					
Trimont-------------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
Kibler--------------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Depth to soft bedrock	0.13
		Depth to bedrock	0.59		
47C:					
Tuckasegee----------	45	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	0.63	Large stones content	0.19
Cullasaja-----------	40	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	0.63		
47D:					
Tuckasegee----------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Large stones content	0.19
Cullasaja-----------	40	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
47E:					
Tuckasegee----------	45	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
				Large stones content	0.19
Cullasaja-----------	40	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
48:					
Udorthents----------	90	Not rated		Not rated	
49F:					
Widgett-------------	50	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Kibler--------------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to bedrock	0.59	Depth to soft bedrock	0.13
50D:					
Widgett-------------	60	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Trimont-------------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
50E:					
Widgett-------------	55	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Trimont-------------	25	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
50F:					
Widgett-------------	50	Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
50F:					
Trimont-------------	20	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Slow water movement	0.50	Seepage	0.50
51B:					
Woolwine------------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.96
				Slope	0.68
Fairview------------	30	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Slope	0.68
51C:					
Woolwine------------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.96
Fairview------------	30	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
		Slow water movement	0.50		
51D:					
Woolwine------------	70	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.96
Fairview------------	30	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
51E:					
Woolwine------------	70	Very limited		Very limited	
		Too steep	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slow water movement	0.50	Depth to hard bedrock	0.96

Table 12.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
51E:					
Fairview-----------	30	Very limited		Very limited	
		Too steep	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
W:					
Water---------------	100	Not rated		Not rated	

Table 12.—Sanitary Facilities, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1D:							
Bellspur	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
1E:							
Bellspur	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Kibler	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
2C:							
Bellspur	65	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
Trimont	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
3C:							
Bluemount	90	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50			Too clayey	0.50
3D:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
3E:							
Bluemount	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
4B:							
Braddock	90	Very limited		Not limited		Very limited	
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
4C:							
Braddock	90	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Slope	0.63			Hard to compact	1.00
						Slope	0.63
4D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
5B:							
Braddock	90	Very limited		Not limited		Very limited	
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
5C:							
Braddock	90	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Slope	0.63			Hard to compact	1.00
						Slope	0.63
5D:							
Braddock	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
6F:							
Bugley	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too steep	1.00
		Seepage, bottom layer	1.00			Seepage	0.50
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	0.84	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
7C:							
Cliffield	55	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	1.00	Slope	0.63	Large stones	1.00
		Slope	0.63			Slope	0.63
Evard	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
7D:							
Cliffield	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	1.00			Large stones	1.00
Evard	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
7E:							
Cliffield	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	1.00			Large stones	1.00
Evard	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
7F:							
Cliffield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	1.00			Large stones	1.00
Evard	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
8B2:							
Clifford	90	Somewhat limited		Not limited		Not limited	
		Too clayey	0.50				
8C2:							
Clifford	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50				
9A:							
Colvard	45	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Seepage	1.00		
Suches	40	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Too clayey	0.50
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.24
		Seepage, bottom layer	1.00				
10A:							
Comus	65	Very limited		Very limited		Not limited	
		Flooding	1.00	Flooding	1.00		
		Seepage, bottom layer	1.00				
Elsinboro	20	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Too clayey	0.50
		Too clayey	0.50	Flooding	0.40		
		Flooding	0.40				
11B:							
Dillard	75	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.47
		Flooding	0.40	Flooding	0.40		

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
12C:							
Dillard	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.47
13B:							
Dillard	50	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.47
		Flooding	0.40	Flooding	0.40		
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Flooding	0.40	Gravel content	0.01
		Flooding	0.40				
14C:							
Dillard	50	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.47
Tugglesgap	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Slope	0.63	Slope	0.63
		Slope	0.63			Gravel content	0.01
15B:							
Dillsboro	90	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Flooding	0.40	Too clayey	1.00
		Seepage, bottom layer	1.00				
		Flooding	0.40				
16C:							
Dillsboro	90	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Seepage, bottom layer	1.00			Slope	0.63
		Slope	0.63				
17B:							
Evard	70	Not limited		Not limited		Not limited	
Cowee	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
17C:							
Evard	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
Cowee	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
17D:							
Evard	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Cowee	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
17E:							
Evard	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Cowee	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
18B:							
Evard	70	Not limited		Not limited		Not limited	
Cowee	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
18C:							
Evard	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
Cowee	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
18D:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
18E:							
Evard	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Cowee	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
19B2:							
Fairview	90	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
19C2:							
Fairview	90	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
				Slope	0.63	Seepage	0.50
		Slope	0.63				

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
19D2:							
Fairview-----------	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
20B:							
Fairview-----------	90	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
20C:							
Fairview-----------	90	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
				Slope	0.63	Seepage	0.50
		Slope	0.63				
20D:							
Fairview-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
21E:							
Fairview-----------	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
Stott Knob----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
22E:							
Fairview-----------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
23C:							
Fairystone----------	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Slope	0.63			Slope	0.63
Littlejoe-----------	20	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	0.84	Too clayey	1.00
		Too clayey	1.00	Slope	0.63	Hard to compact	1.00
		Slope	0.63			Depth to bedrock	0.84

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
24D:							
Fairystone	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	0.84	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
25E:							
Fairystone	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
Littlejoe	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	0.84	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
26A:							
French	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Too sandy	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.99
27A:							
French	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Too sandy	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.99
Dellwood	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	0.50
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.38
28D:							
Goblintown	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Penhook	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
28E:							
Goblintown	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
28E:							
Penhook	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
29A:							
Hatboro	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00		
30F:							
Hickoryknob	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
Rhodhiss	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
						Too clayey	0.50
31C:							
Meadowfield	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	0.96
		Too clayey	0.50			Slope	0.63
Stott Knob	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
				Slope	0.63	Seepage	0.50
		Slope	0.63				
31D:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Gravel content	0.96
Stott Knob	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
32E:							
Meadowfield	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Gravel content	0.96
Stott Knob	15	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
32F:							
Meadowfield	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Gravel content	0.96
Stott Knob	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
33B:							
Minnieville	90	Somewhat limited		Not limited		Somewhat limited	
		Too clayey	0.50			Too clayey	0.50
33C:							
Minnieville	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50			Too clayey	0.50
33D:							
Minnieville	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	0.50			Too clayey	0.50
33E:							
Minnieville	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	0.50			Too clayey	0.50
34B:							
Minnieville	65	Somewhat limited		Not limited		Somewhat limited	
		Too clayey	0.50			Too clayey	0.50
Redbrush	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to bedrock	1.00
34C:							
Minnieville	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50			Too clayey	0.50
Redbrush	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00	Slope	0.63	Hard to compact	1.00
		Slope	0.63			Depth to bedrock	1.00
34D:							
Minnieville	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	0.50			Too clayey	0.50
Redbrush	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
35A:							
Nikwasi	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Seepage	1.00
Dellwood	35	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	0.50
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.38
36D:							
Peaks	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Edneyville	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
36E:							
Peaks	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Edneyville	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
37F:							
Peaks	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Rock outcrop	30	Not rated		Not rated		Not rated	
38C:							
Penhook	55	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Slope	0.63			Hard to compact	1.00
						Slope	0.63
Goblintown	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
39C:							
Penhook	65	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.63	Too clayey	1.00
		Slope	0.63			Hard to compact	1.00
						Slope	0.63
Strawfield	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00	Slope	0.63	Hard to compact	1.00
		Slope	0.63			Depth to bedrock	1.00
39D:							
Penhook	65	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
Strawfield	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
39E:							
Penhook	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
Strawfield	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
40E:							
Rhodhiss	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
						Too clayey	0.50
Stott Knob	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
41B:							
Saunook	85	Not limited		Not limited		Not limited	
41C:							
Saunook	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
41D:							
Saunook	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
42B:							
Saunook	60	Not limited		Not limited		Not limited	

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
42B:							
Thunder	30	Very limited		Very limited		Very limited	
		Large stones	1.00	Seepage	1.00	Large stones	1.00
		Seepage, bottom layer	1.00			Seepage	0.50
42C:							
Saunook	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
Thunder	35	Very limited		Very limited		Very limited	
		Large stones	1.00	Seepage	1.00	Large stones	1.00
		Seepage, bottom layer	1.00	Slope	0.63	Slope	0.63
		Slope	0.63			Seepage	0.50
42D:							
Saunook	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Thunder	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Large stones	1.00	Seepage	1.00	Large stones	1.00
		Seepage, bottom layer	1.00			Seepage	0.50
43B:							
Thurmont	90	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
		Seepage, bottom layer	1.00				
		Too clayey	0.50				
43C:							
Thurmont	90	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.63
		Seepage, bottom layer	1.00	Slope	0.63	Too clayey	0.50
		Slope	0.63				
43D:							
Thurmont	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Too steep	1.00	Too steep	1.00
		Too steep	1.00	Depth to saturated zone	1.00	Too clayey	0.50
		Seepage, bottom layer	1.00				
44C:							
Thurmont	90	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.63
		Seepage, bottom layer	1.00	Slope	0.63	Too clayey	0.50
		Slope	0.63				

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
44D:							
Thurmont------------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Too steep	1.00	Too steep	1.00
		Too steep	1.00	Depth to saturated zone	1.00	Too clayey	0.50
		Seepage, bottom layer	1.00				
45B:							
Trimont-------------	60	Not limited		Not limited		Not limited	
Kibler--------------	30	Very limited		Very limited		Somewhat limited	
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
45C:							
Trimont-------------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
Kibler--------------	35	Very limited		Very limited		Somewhat limited	
		Depth to bedrock	1.00	Seepage	1.00	Slope	0.63
		Seepage, bottom layer	1.00	Slope	0.63	Seepage	0.50
		Slope	0.63	Depth to bedrock	0.14	Depth to bedrock	0.14
45D:							
Trimont-------------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Kibler--------------	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
45E:							
Trimont-------------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Kibler--------------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
46B:							
Trimont-------------	60	Not limited		Not limited		Not limited	
Kibler--------------	30	Very limited		Very limited		Somewhat limited	
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
46C:							
Trimont-------------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
46C:							
Kibler	35	Very limited		Very limited		Somewhat limited	
		Depth to bedrock	1.00	Seepage	1.00	Slope	0.63
		Seepage, bottom layer	1.00	Slope	0.63	Seepage	0.50
		Slope	0.63	Depth to bedrock	0.14	Depth to bedrock	0.14
46D:							
Trimont	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Kibler	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
46E:							
Trimont	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
Kibler	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
47C:							
Tuckasegee	45	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Seepage	0.21
Cullasaja	40	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Seepage	0.50
						Gravel content	0.28
47D:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.21
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
						Gravel content	0.28
47E:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.21
Cullasaja	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
						Gravel content	0.28

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
48:							
Udorthents	90	Not rated		Not rated		Not rated	
49F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Large stones content	0.86
Kibler	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Seepage	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Depth to bedrock	0.14	Depth to bedrock	0.14
50D:							
Widgett	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Large stones content	0.86
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
50E:							
Widgett	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Large stones content	0.86
Trimont	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
50F:							
Widgett	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Large stones content	0.86
Trimont	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
51B:							
Woolwine	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
Fairview	30	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
51C:							
Woolwine	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50			Too clayey	0.50

Table 12.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
51C:							
Fairview------------	30	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Seepage	0.50
51D:							
Woolwine------------	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
Fairview------------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
51E:							
Woolwine------------	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
Fairview------------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 13.—Construction Materials, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
1D:					
Bellspur	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.13
Kibler	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
1E:					
Bellspur	55	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.01
		Bottom layer	0.00	Bottom layer	0.13
Kibler	25	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
2C:					
Bellspur	65	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.01
		Bottom layer	0.00	Bottom layer	0.13
Trimont	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
3C:					
Bluemount	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
3D:					
Bluemount	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
3E:					
Bluemount	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
4B:					
Braddock	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
4C:					
Braddock	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
4D:					
Braddock	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
5B:					
Braddock	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
5C:					
Braddock	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
5D:					
Braddock	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
6F:					
Bugley	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Littlejoe	20	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
7C:					
Cliffield	55	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Evard	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
7D:					
Cliffield	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Evard	25	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
7E:					
Cliffield	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Evard	25	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
7F:					
Cliffield	65	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
7F:					
Evard	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
8B2:					
Clifford	90	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
8C2:					
Clifford	90	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
9A:					
Colvard	45	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.02
Suches	40	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
10A:					
Comus	65	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.07
Elsinboro	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
11B:					
Dillard	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
12C:					
Dillard	85	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
13B:					
Dillard	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tugglesgap	30	Poor		Fair	
		Thickest layer	0.00	Bottom layer	0.01
		Bottom layer	0.00	Thickest layer	0.04
14C:					
Dillard	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tugglesgap	30	Poor		Fair	
		Thickest layer	0.00	Bottom layer	0.01
		Bottom layer	0.00	Thickest layer	0.04

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
15B:					
Dillsboro-----------	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
16C:					
Dillsboro-----------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
17B:					
Evard---------------	70	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	20	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
17C:					
Evard---------------	70	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	20	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
17D:					
Evard---------------	65	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	25	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
17E:					
Evard---------------	55	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	35	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
18B:					
Evard---------------	70	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	20	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
18C:					
Evard---------------	55	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
18C:					
Cowee---------------	35	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
18D:					
Evard---------------	50	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	40	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
18E:					
Evard---------------	50	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
Cowee---------------	40	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
19B2:					
Fairview------------	90	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
19C2:					
Fairview------------	90	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
19D2:					
Fairview------------	90	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
20B:					
Fairview------------	90	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
20C:					
Fairview------------	90	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
20D:					
Fairview------------	85	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
21E:					
Fairview------------	60	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
21E:					
Stott Knob	30	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
22E:					
Fairview	75	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
Stott Knob	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
23C:					
Fairystone	75	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Littlejoe	20	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
24D:					
Fairystone	75	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Littlejoe	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
25E:					
Fairystone	70	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Littlejoe	20	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
26A:					
French	85	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.12	Bottom layer	0.57
27A:					
French	55	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.12	Bottom layer	0.57
Dellwood	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.10
28D:					
Goblintown	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
28D:					
Penhook-------------	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
28E:					
Goblintown----------	55	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Penhook-------------	35	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
29A:					
Hatboro-------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.10
30F:					
Hickoryknob---------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rhodhiss------------	15	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.04
31C:					
Meadowfield---------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Stott Knob----------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
31D:					
Meadowfield---------	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Stott Knob----------	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
32E:					
Meadowfield---------	65	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Stott Knob----------	15	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
32F:					
Meadowfield---------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
32F:					
Stott Knob----------	20	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
33B:					
Minnieville---------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
33C:					
Minnieville---------	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
33D:					
Minnieville---------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
33E:					
Minnieville---------	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
34B:					
Minnieville---------	65	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Redbrush------------	35	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
34C:					
Minnieville---------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Redbrush------------	40	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
34D:					
Minnieville---------	60	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Redbrush------------	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
35A:					
Nikwasi-------------	55	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Dellwood------------	35	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.00	Bottom layer	0.10

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
36D:					
Peaks---------------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Edneyville----------	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
36E:					
Peaks---------------	65	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Edneyville----------	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
37F:					
Peaks---------------	50	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Rock outcrop--------	30	Not rated		Not rated	
38C:					
Penhook-------------	55	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Goblintown----------	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
39C:					
Penhook-------------	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Strawfield----------	30	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
39D:					
Penhook-------------	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Strawfield----------	30	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
39E:					
Penhook-------------	60	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Strawfield----------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
40E:					
Rhodhiss	75	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.04
Stott Knob	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
41B:					
Saunook	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
41C:					
Saunook	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
41D:					
Saunook	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
42B:					
Saunook	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Thunder	30	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
42C:					
Saunook	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Thunder	35	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
42D:					
Saunook	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Thunder	35	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
43B:					
Thurmont	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
43C:					
Thurmont	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
43D:					
Thurmont------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
44C:					
Thurmont------------	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
44D:					
Thurmont------------	90	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
45B:					
Trimont-------------	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Kibler--------------	30	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
45C:					
Trimont-------------	55	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
Kibler--------------	35	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
45D:					
Trimont-------------	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Kibler--------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
45E:					
Trimont-------------	45	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
Kibler--------------	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
46B:					
Trimont-------------	60	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
Kibler--------------	30	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
46C:					
Trimont----------------	55	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Kibler-----------------	35	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
46D:					
Trimont----------------	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Kibler-----------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
46E:					
Trimont----------------	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Kibler-----------------	45	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
47C:					
Tuckasegee-------------	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cullasaja--------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
47D:					
Tuckasegee-------------	45	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Cullasaja--------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
47E:					
Tuckasegee-------------	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cullasaja--------------	40	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.02
48:					
Udorthents-------------	90	Not rated		Not rated	

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
49F:					
Widgett-------------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kibler--------------	20	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
50D:					
Widgett-------------	60	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Trimont-------------	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
50E:					
Widgett-------------	55	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Trimont-------------	25	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
50F:					
Widgett-------------	50	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Trimont-------------	20	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.01
51B:					
Woolwine------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Fairview------------	30	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
51C:					
Woolwine------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Fairview------------	30	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
51D:					
Woolwine------------	70	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00

Table 13.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
51D:					
Fairview------------	30	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
51E:					
Woolwine------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Fairview------------	30	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
W:					
Water----------------	100	Not rated		Not rated	

Table 13.—Construction Materials, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1D:							
Bellspur	60	Fair		Poor		Poor	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.50	Rock fragments	0.12
		Droughty	0.51			Depth to bedrock	0.90
Kibler	20	Fair		Fair		Poor	
		Organic matter content low	0.50	Slope	0.50	Slope	0.00
		Too acid	0.54	Depth to bedrock	0.87	Rock fragments	0.68
						Hard to reclaim (rock fragments)	0.88
1E:							
Bellspur	55	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Rock fragments	0.12
		Droughty	0.51			Depth to bedrock	0.90
Kibler	25	Fair		Poor		Poor	
		Organic matter content low	0.50	Slope	0.00	Slope	0.00
		Too acid	0.54	Depth to bedrock	0.87	Rock fragments	0.68
						Hard to reclaim (rock fragments)	0.88
2C:							
Bellspur	65	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Rock fragments	0.12
		Too acid	0.50			Slope	0.37
		Droughty	0.51			Depth to bedrock	0.90
Trimont	20	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
		Too acid	0.54			Rock fragments	0.59
						Too acid	0.98
3C:							
Bluemount	90	Fair		Poor		Poor	
		Depth to bedrock	0.10	Depth to bedrock	0.00	Rock fragments	0.00
		Organic matter content low	0.12	Shrink-swell	0.87	Depth to bedrock	0.10
		Droughty	0.27	Cobble content	0.89	Slope	0.37
3D:							
Bluemount	90	Fair		Poor		Poor	
		Depth to bedrock	0.10	Depth to bedrock	0.00	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Rock fragments	0.00
		Droughty	0.27	Shrink-swell	0.87	Depth to bedrock	0.10

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
3E:							
Bluemount-----------	90	Fair		Poor		Poor	
		Depth to bedrock	0.10	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Depth to bedrock	0.00	Rock fragments	0.00
				Shrink-swell	0.87	Depth to bedrock	0.10
		Droughty	0.27				
4B:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.90	Too acid	0.88
		Too acid	0.32				
4C:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.90	Slope	0.37
						Too acid	0.88
		Too acid	0.32				
4D:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Too clayey	0.00
				Shrink-swell	0.90	Too acid	0.88
		Too acid	0.32				
5B:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.90	Hard to reclaim (rock fragments)	0.50
		Too acid	0.32			Rock fragments	0.50
5C:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.90	Slope	0.37
						Hard to reclaim (rock fragments)	0.50
		Too acid	0.32				
5D:							
Braddock------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Too clayey	0.00
				Shrink-swell	0.90	Hard to reclaim	0.50
		Too acid	0.32				
6F:							
Bugley--------------	70	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Organic matter content low	0.02			Rock fragments	0.00
Littlejoe-----------	20	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.00	Too clayey	0.00
				Depth to bedrock	0.16	Too acid	0.88
		Too acid	0.50				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
7C:							
Cliffield	55	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Cobble content	0.00	Cobble content	0.12	Depth to bedrock	0.05
		Depth to bedrock	0.05			Slope	0.37
Evard	25	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.24
						Slope	0.37
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
7D:							
Cliffield	55	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Cobble content	0.00	Cobble content	0.12	Rock fragments	0.00
		Depth to bedrock	0.05	Slope	0.50	Depth to bedrock	0.05
Evard	25	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
						Rock fragments	0.24
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
7E:							
Cliffield	55	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Cobble content	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.05	Cobble content	0.12	Depth to bedrock	0.05
Evard	25	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.24
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
7F:							
Cliffield	65	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Cobble content	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.05	Cobble content	0.12	Depth to bedrock	0.05
Evard	15	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.24
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
8B2:							
Clifford	90	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.10	Too acid	0.98
		Too acid	0.54				
8C2:							
Clifford	90	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.10	Slope	0.37
						Too acid	0.98
		Too acid	0.54				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
9A:							
Colvard	45	Fair		Good		Fair	
		Organic matter content low	0.88			Too sandy	0.99
		Droughty	0.97				
		Too sandy	0.99				
Suches	40	Fair		Fair		Fair	
		Too acid	0.84	Low strength	0.22	Wetness depth	0.98
				Wetness depth	0.98		
10A:							
Comus	65	Fair		Good		Fair	
		Too acid	0.54			Too acid	0.98
		Water erosion	0.90			Too sandy	0.98
		Too sandy	0.98				
Elsinboro	20	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.50				
11B:							
Dillard	75	Fair		Fair		Fair	
		Too acid	0.68	Wetness depth	0.89	Wetness depth	0.89
		Organic matter content low	0.88				
12C:							
Dillard	85	Fair		Fair		Fair	
		Too acid	0.68	Wetness depth	0.89	Slope	0.37
		Organic matter content low	0.88			Wetness depth	0.89
13B:							
Dillard	50	Fair		Fair		Fair	
		Too acid	0.68	Wetness depth	0.89	Wetness depth	0.89
		Organic matter content low	0.88				
Tugglesgap	30	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
				Cobble content	0.44	Rock fragments	0.00
		Too acid	0.46			Too acid	0.95
14C:							
Dillard	50	Fair		Fair		Fair	
		Too acid	0.68	Wetness depth	0.89	Slope	0.37
		Organic matter content low	0.88			Wetness depth	0.89
Tugglesgap	30	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
				Cobble content	0.44	Rock fragments	0.00
		Too acid	0.46			Slope	0.37

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
15B:							
Dillsboro	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12			Rock fragments	0.88
		Too acid	0.16			Too acid	0.92
16C:							
Dillsboro	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12			Slope	0.37
		Too acid	0.39			Rock fragments	0.88
17B:							
Evard	70	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.24
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
						Too acid	0.98
Cowee	20	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Depth to bedrock	0.54
		Droughty	0.50			Too acid	0.76
		Too acid	0.50			Rock fragments	0.82
17C:							
Evard	70	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.24
		Too acid	0.54			Slope	0.37
						Hard to reclaim (rock fragments)	0.92
Cowee	20	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.37
		Droughty	0.50			Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76
17D:							
Evard	65	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.54			Rock fragments	0.24
						Hard to reclaim (rock fragments)	0.92
Cowee	25	Fair		Poor		Poor	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.50	Slope	0.50	Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76
17E:							
Evard	55	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.54			Rock fragments	0.24
						Hard to reclaim (rock fragments)	0.92

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
17E:							
Cowee	35	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Droughty	0.50	Depth to bedrock	0.00	Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76
18B:							
Evard	70	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.24
		Too acid	0.54			Hard to reclaim (rock fragments)	0.92
						Too acid	0.98
Cowee	20	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Depth to bedrock	0.54
		Droughty	0.50			Too acid	0.76
		Too acid	0.50			Rock fragments	0.82
18C:							
Evard	55	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.24
		Too acid	0.54			Slope	0.37
						Hard to reclaim (rock fragments)	0.92
Cowee	35	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.37
		Droughty	0.50			Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76
18D:							
Evard	50	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.54			Rock fragments	0.24
						Hard to reclaim (rock fragments)	0.92
Cowee	40	Fair		Poor		Poor	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.50	Slope	0.50	Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76
18E:							
Evard	50	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.54			Rock fragments	0.24
						Hard to reclaim (rock fragments)	0.92
Cowee	40	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Droughty	0.50	Depth to bedrock	0.00	Depth to bedrock	0.54
		Too acid	0.50			Too acid	0.76

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
19B2:							
Fairview------------	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Rock fragments	0.92
		Too acid	0.54			Too acid	0.98
19C2:							
Fairview------------	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Slope	0.37
		Too acid	0.54			Rock fragments	0.92
19D2:							
Fairview------------	90	Poor		Fair		Poor	
		Too clayey	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
		Too acid	0.54			Rock fragments	0.92
20B:							
Fairview------------	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Rock fragments	0.74
		Too acid	0.54			Too acid	0.98
20C:							
Fairview------------	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Slope	0.37
		Too acid	0.54			Rock fragments	0.74
20D:							
Fairview------------	85	Poor		Fair		Poor	
		Too clayey	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
		Too acid	0.54			Rock fragments	0.74
21E:							
Fairview------------	60	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
		Too acid	0.54			Rock fragments	0.92
Stott Knob----------	30	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
22E:							
Fairview------------	75	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
		Too acid	0.54			Rock fragments	0.74

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
22E:							
Stott Knob	15	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.92
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
23C:							
Fairystone	75	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.10	Shrink-swell	0.87	Too clayey	0.00
		Organic matter content low	0.12	Cobble content	0.99	Depth to bedrock	0.10
Littlejoe	20	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Depth to bedrock	0.16	Slope	0.37
				Shrink-swell	0.87	Too acid	0.88
		Too acid	0.50				
24D:							
Fairystone	75	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.10	Slope	0.50	Rock fragments	0.00
		Organic matter content low	0.12	Shrink-swell	0.87	Too clayey	0.00
Littlejoe	20	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.12	Depth to bedrock	0.16	Too clayey	0.00
				Slope	0.50	Too acid	0.88
		Too acid	0.50				
25E:							
Fairystone	70	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Depth to bedrock	0.10	Depth to bedrock	0.00	Rock fragments	0.00
		Organic matter content low	0.12	Shrink-swell	0.87	Too clayey	0.00
Littlejoe	20	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.00	Too clayey	0.00
				Depth to bedrock	0.16	Too acid	0.88
		Too acid	0.50				
26A:							
French	85	Fair		Fair		Poor	
		Organic matter content low	0.12	Wetness depth	0.18	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.18
		Droughty	0.84				
27A:							
French	55	Fair		Fair		Poor	
		Organic matter content low	0.12	Wetness depth	0.18	Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Wetness depth	0.18
		Droughty	0.84				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
27A:							
Dellwood	40	Poor		Fair		Poor	
		Droughty	0.00	Cobble content	0.18	Rock fragments	0.00
		Too sandy	0.01	Wetness depth	0.93	Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.01
28D:							
Goblintown	45	Fair		Poor		Poor	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.54	Slope	0.50	Rock fragments	0.82
		Depth to bedrock	0.97	Shrink-swell	0.87		
Penhook	45	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Too acid	0.08	Slope	0.50	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.98	Too acid	0.50
28E:							
Goblintown	55	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.54	Depth to bedrock	0.00	Rock fragments	0.82
		Depth to bedrock	0.97	Shrink-swell	0.87	Depth to bedrock	0.97
Penhook	35	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Too acid	0.08	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.98	Too acid	0.50
29A:							
Hatboro	85	Good		Poor		Poor	
				Wetness depth	0.00	Wetness depth	0.00
						Hard to reclaim (rock fragments)	0.00
30F:							
Hickoryknob	70	Fair		Poor		Poor	
		Droughty	0.04	Slope	0.00	Slope	0.00
		Depth to bedrock	0.05	Depth to bedrock	0.00	Depth to bedrock	0.05
		Organic matter content low	0.12			Rock fragments	0.34
Rhodhiss	15	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.54			Rock fragments	0.95
						Hard to reclaim (rock fragments)	0.98
31C:							
Meadowfield	60	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.35			Depth to bedrock	0.35
		Too acid	0.50			Slope	0.37

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
31C:							
Stott Knob----------	30	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.37
						Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
31D:							
Meadowfield---------	65	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.35	Slope	0.50	Rock fragments	0.00
		Too acid	0.50			Depth to bedrock	0.35
Stott Knob----------	25	Fair		Poor		Poor	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
				Slope	0.50	Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
32E:							
Meadowfield---------	65	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Depth to bedrock	0.35	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.50			Depth to bedrock	0.35
Stott Knob----------	15	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
32F:							
Meadowfield---------	60	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Depth to bedrock	0.35	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.50			Depth to bedrock	0.35
Stott Knob----------	20	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
33B:							
Minnieville---------	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.87		
		Too acid	0.74				
33C:							
Minnieville---------	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.87	Slope	0.37
		Too acid	0.74				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
33D:							
Minnieville	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Too clayey	0.00
				Shrink-swell	0.87		
		Too acid	0.74				
33E:							
Minnieville	90	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.10	Too clayey	0.00
				Shrink-swell	0.87		
		Too acid	0.74				
34B:							
Minnieville	65	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.87		
		Too acid	0.74				
Redbrush	35	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.00	Depth to bedrock	0.54
				Shrink-swell	0.12	Rock fragments	0.82
		Droughty	0.13				
34C:							
Minnieville	60	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.87	Slope	0.37
		Too acid	0.74				
Redbrush	40	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.00	Slope	0.37
				Shrink-swell	0.12	Depth to bedrock	0.54
		Droughty	0.13				
34D:							
Minnieville	60	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Too clayey	0.00
				Shrink-swell	0.87		
		Too acid	0.74				
Redbrush	40	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.00	Too clayey	0.00
				Shrink-swell	0.12	Depth to bedrock	0.54
		Droughty	0.13				
35A:							
Nikwasi	55	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
						Hard to reclaim (rock fragments)	0.08
		Too acid	0.68				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
35A:							
Dellwood-----------	35	Poor		Fair		Poor	
		Droughty	0.00	Cobble content	0.18	Rock fragments	0.00
		Too sandy	0.01	Wetness depth	0.93	Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.50			Too sandy	0.01
36D:							
Peaks---------------	60	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Organic matter content low	0.12	Cobble content	0.23	Rock fragments	0.00
				Slope	0.50	Depth to bedrock	0.84
		Too acid	0.54				
Edneyville----------	30	Fair		Fair		Poor	
		Too acid	0.54	Slope	0.50	Slope	0.00
						Rock fragments	0.68
						Too acid	0.98
36E:							
Peaks---------------	65	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Depth to bedrock	0.00	Rock fragments	0.00
				Cobble content	0.23	Depth to bedrock	0.84
		Too acid	0.54				
Edneyville----------	25	Fair		Poor		Poor	
		Too acid	0.54	Slope	0.00	Slope	0.00
						Rock fragments	0.68
						Too acid	0.98
37F:							
Peaks---------------	50	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Depth to bedrock	0.00	Rock fragments	0.00
				Cobble content	0.23	Depth to bedrock	0.84
		Too acid	0.54				
Rock outcrop--------	30	Not rated		Not rated		Not rated	
38C:							
Penhook-------------	55	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.08	Shrink-swell	0.98	Slope	0.37
		Organic matter content low	0.12			Too acid	0.50
Goblintown----------	35	Fair		Poor		Fair	
		Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.37
				Shrink-swell	0.87	Rock fragments	0.82
		Too acid	0.54			Depth to bedrock	0.97
		Depth to bedrock	0.97				
39C:							
Penhook-------------	65	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.08	Shrink-swell	0.98	Slope	0.37
		Organic matter content low	0.12			Too acid	0.50

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
39C:							
Strawfield	30	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Depth to bedrock	0.03	Low strength	0.00	Depth to bedrock	0.03
		Organic matter content low	0.12	Shrink-swell	0.87	Slope	0.37
39D:							
Penhook	65	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Too acid	0.08	Slope	0.50	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.98	Too acid	0.50
Strawfield	30	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.03	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Slope	0.50	Depth to bedrock	0.03
39E:							
Penhook	60	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Too acid	0.08	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.98	Too acid	0.50
Strawfield	30	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Depth to bedrock	0.03	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.00	Depth to bedrock	0.03
40E:							
Rhodhiss	75	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.95
		Too acid	0.54			Hard to reclaim (rock fragments)	0.98
Stott Knob	20	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.95
		Too acid	0.54			Too acid	0.98
		Droughty	0.91				
41B:							
Saunook	85	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
41C:							
Saunook	85	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
						Too acid	0.98
		Too acid	0.54				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
41D:							
Saunook	85	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.54			Too acid	0.98
42B:							
Saunook	60	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
Thunder	30	Poor		Poor		Poor	
		Stone content	0.00	Stone content	0.00	Rock fragments	0.00
		Organic matter content low	0.12	Cobble content	0.00	Hard to reclaim (rock fragments)	0.00
		Droughty	0.35				
42C:							
Saunook	55	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
		Too acid	0.54			Too acid	0.98
Thunder	35	Poor		Poor		Poor	
		Stone content	0.00	Stone content	0.00	Rock fragments	0.00
		Organic matter content low	0.12	Cobble content	0.00	Hard to reclaim (rock fragments)	0.00
		Droughty	0.35			Slope	0.37
42D:							
Saunook	55	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.54			Too acid	0.98
Thunder	35	Poor		Poor		Poor	
		Stone content	0.00	Stone content	0.00	Slope	0.00
		Organic matter content low	0.12	Cobble content	0.00	Rock fragments	0.00
		Droughty	0.35	Slope	0.50	Hard to reclaim (rock fragments)	0.00
43B:							
Thurmont	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too clayey	0.29
		Too acid	0.32			Rock fragments	0.68
		Too clayey	0.50			Too acid	0.88
43C:							
Thurmont	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too clayey	0.29
		Too acid	0.32			Slope	0.37
		Too clayey	0.50			Rock fragments	0.68

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
43D:							
Thurmont------------	90	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.32			Too clayey	0.29
		Too clayey	0.50			Rock fragments	0.68
44C:							
Thurmont------------	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too clayey	0.29
		Too acid	0.32			Slope	0.37
		Too clayey	0.50			Rock fragments	0.68
44D:							
Thurmont------------	90	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.32			Too clayey	0.29
		Too clayey	0.50			Rock fragments	0.68
45B:							
Trimont-------------	60	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
						Hard to reclaim (rock fragments)	0.99
Kibler--------------	30	Fair		Fair		Fair	
		Organic matter content low	0.50	Depth to bedrock	0.87	Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88
						Too acid	0.98
45C:							
Trimont-------------	55	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
		Too acid	0.54			Rock fragments	0.59
						Too acid	0.98
Kibler--------------	35	Fair		Fair		Fair	
		Organic matter content low	0.50	Depth to bedrock	0.87	Slope	0.37
		Too acid	0.54			Rock fragments	0.68
						Hard to reclaim (rock fragments)	0.88
45D:							
Trimont-------------	50	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.54			Rock fragments	0.59
						Too acid	0.98
Kibler--------------	40	Fair		Fair		Poor	
		Organic matter content low	0.50	Slope	0.50	Slope	0.00
		Too acid	0.54	Depth to bedrock	0.87	Rock fragments	0.68
						Hard to reclaim (rock fragments)	0.88

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
45E:							
Trimont	45	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
Kibler	45	Fair		Poor		Poor	
		Organic matter content low	0.50	Slope	0.00	Slope	0.00
				Depth to bedrock	0.87	Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88
46B:							
Trimont	60	Fair		Good		Fair	
		Organic matter content low	0.12			Rock fragments	0.59
						Too acid	0.98
		Too acid	0.54			Hard to reclaim (rock fragments)	0.99
Kibler	30	Fair		Fair		Fair	
		Organic matter content low	0.50	Depth to bedrock	0.87	Rock fragments	0.68
						Hard to reclaim (rock fragments)	0.88
		Too acid	0.54				
						Too acid	0.98
46C:							
Trimont	55	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
Kibler	35	Fair		Fair		Fair	
		Organic matter content low	0.50	Depth to bedrock	0.87	Slope	0.37
						Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88
46D:							
Trimont	50	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
Kibler	40	Fair		Fair		Poor	
		Organic matter content low	0.50	Slope	0.50	Slope	0.00
				Depth to bedrock	0.87	Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88
46E:							
Trimont	45	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
Kibler	45	Fair		Poor		Poor	
		Organic matter content low	0.50	Slope	0.00	Slope	0.00
				Depth to bedrock	0.87	Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
47C:							
Tuckasegee----------	45	Fair		Fair		Fair	
		Too acid	0.54	Cobble content	0.86	Rock fragments	0.11
						Slope	0.37
						Hard to reclaim (rock fragments)	0.41
Cullasaja-----------	40	Fair		Good		Poor	
		Too acid	0.54			Rock fragments	0.00
		Droughty	0.94			Hard to reclaim (rock fragments)	0.26
		Too sandy	0.98			Slope	0.37
47D:							
Tuckasegee----------	45	Fair		Fair		Poor	
		Too acid	0.54	Slope	0.50	Slope	0.00
				Cobble content	0.86	Rock fragments	0.11
						Hard to reclaim (rock fragments)	0.41
Cullasaja-----------	40	Fair		Fair		Poor	
		Too acid	0.54	Slope	0.50	Slope	0.00
		Droughty	0.94			Rock fragments	0.00
		Too sandy	0.98			Hard to reclaim (rock fragments)	0.26
47E:							
Tuckasegee----------	45	Fair		Poor		Poor	
		Too acid	0.54	Slope	0.00	Slope	0.00
				Cobble content	0.86	Rock fragments	0.11
						Hard to reclaim (rock fragments)	0.41
Cullasaja-----------	40	Fair		Poor		Poor	
		Too acid	0.54	Slope	0.00	Slope	0.00
		Droughty	0.94			Rock fragments	0.00
		Too sandy	0.98			Hard to reclaim (rock fragments)	0.26
48:							
Udorthents----------	90	Not rated		Not rated		Not rated	
49F:							
Widgett-------------	50	Fair		Poor		Poor	
		Droughty	0.01	Slope	0.00	Slope	0.00
		Cobble content	0.47	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.50	Cobble content	0.01	Too acid	0.68
Kibler--------------	20	Fair		Poor		Poor	
		Organic matter content low	0.50	Slope	0.00	Slope	0.00
				Depth to bedrock	0.87	Rock fragments	0.68
		Too acid	0.54			Hard to reclaim (rock fragments)	0.88
50D:							
Widgett-------------	60	Fair		Poor		Poor	
		Droughty	0.01	Depth to bedrock	0.00	Slope	0.00
		Cobble content	0.47	Cobble content	0.01	Rock fragments	0.00
		Too acid	0.50	Slope	0.50	Too acid	0.68

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
50D:							
Trimont	20	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
50E:							
Widgett	55	Fair		Poor		Poor	
		Droughty	0.01	Slope	0.00	Slope	0.00
		Cobble content	0.47	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.50	Cobble content	0.01	Too acid	0.68
Trimont	25	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
50F:							
Widgett	50	Fair		Poor		Poor	
		Droughty	0.01	Slope	0.00	Slope	0.00
		Cobble content	0.47	Depth to bedrock	0.00	Rock fragments	0.00
		Too acid	0.50	Cobble content	0.01	Too acid	0.68
Trimont	20	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Rock fragments	0.59
		Too acid	0.54			Too acid	0.98
51B:							
Woolwine	70	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.10	Depth to bedrock	0.35
						Rock fragments	0.68
		Droughty	0.16				
Fairview	30	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Rock fragments	0.92
						Too acid	0.98
		Too acid	0.54				
51C:							
Woolwine	70	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.10	Depth to bedrock	0.35
						Slope	0.37
		Droughty	0.16				
Fairview	30	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.02			Slope	0.37
						Rock fragments	0.92
		Too acid	0.54				
51D:							
Woolwine	70	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.10	Too clayey	0.00
				Slope	0.50	Depth to bedrock	0.35
		Droughty	0.16				

Table 13.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
51D:							
Fairview------------	30	Poor		Fair		Poor	
		Too clayey	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
						Rock fragments	0.92
		Too acid	0.54				
51E:							
Woolwine------------	70	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Depth to bedrock	0.00	Too clayey	0.00
				Low strength	0.10	Depth to bedrock	0.35
		Droughty	0.16				
Fairview------------	30	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too clayey	0.00
						Rock fragments	0.92
		Too acid	0.54				
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 14.—Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1D:							
Bellspur	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.70	Depth to water	1.00
		Seepage	0.70	Seepage	0.13		
		Depth to bedrock	0.42				
Kibler	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
1E:							
Bellspur	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.70	Depth to water	1.00
		Seepage	0.70	Seepage	0.13		
		Depth to bedrock	0.42				
Kibler	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
2C:							
Bellspur	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.70	Depth to water	1.00
		Seepage	0.70	Seepage	0.13		
		Depth to bedrock	0.42				
Trimont	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
3C:							
Bluemount	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.98	Piping	0.53		
		Seepage	0.70	Large stones content	0.18		
3D:							
Bluemount	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.98	Piping	0.53		
		Seepage	0.70	Large stones content	0.18		
3E:							
Bluemount	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.98	Piping	0.53		
		Seepage	0.70	Large stones content	0.18		

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
4B:							
Braddock	90	Somewhat limited		Not limited		Very limited	
		Seepage	0.99			Depth to water	1.00
		Slope	0.32				
4C:							
Braddock	90	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.99				
4D:							
Braddock	90	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.99				
5B:							
Braddock	90	Somewhat limited		Not limited		Very limited	
		Seepage	0.99			Depth to water	1.00
		Slope	0.32				
5C:							
Braddock	90	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.99				
5D:							
Braddock	90	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.99				
6F:							
Bugley	70	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
Littlejoe	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.26	Depth to water	1.00
		Seepage	0.57				
		Depth to bedrock	0.01				
7C:							
Cliffield	55	Very limited		Very limited		Very limited	
		Slope	1.00	Large stones content	1.00	Depth to water	1.00
		Depth to bedrock	0.99	Thin layer	0.99		
		Seepage	0.70	Seepage	0.35		
Evard	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
7D:							
Cliffield	55	Very limited		Very limited		Very limited	
		Slope	1.00	Large stones content	1.00	Depth to water	1.00
		Depth to bedrock	0.99	Thin layer	0.99		
		Seepage	0.70	Seepage	0.35		

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
7D:							
Evard	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
7E:							
Cliffield	55	Very limited		Very limited		Very limited	
		Slope	1.00	Large stones content	1.00	Depth to water	1.00
		Depth to bedrock	0.99	Thin layer	0.99		
		Seepage	0.70	Seepage	0.35		
Evard	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
7F:							
Cliffield	65	Very limited		Very limited		Very limited	
		Slope	1.00	Large stones content	1.00	Depth to water	1.00
		Depth to bedrock	0.99	Thin layer	0.99		
		Seepage	0.70	Seepage	0.35		
Evard	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
8B2:							
Clifford	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.33	Depth to water	1.00
		Slope	0.32	Seepage	0.01		
8C2:							
Clifford	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.33	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
9A:							
Colvard	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
Suches	40	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Piping	0.99	Depth to saturated zone	0.14
				Depth to saturated zone	0.68	Cutbanks cave	0.10
10A:							
Comus	65	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
Elsinboro	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
				Seepage	0.04		
11B:							
Dillard	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	0.86	Slow refill	0.95
		Slope	0.32	Piping	0.78	Cutbanks cave	0.10
						Depth to saturated zone	0.06

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
12C:							
Dillard	85	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Depth to saturated zone	0.86	Slow refill	0.95
		Seepage	0.70	Piping	0.78	Cutbanks cave	0.10
						Depth to saturated zone	0.06
13B:							
Dillard	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	0.86	Slow refill	0.95
		Slope	0.32	Piping	0.78	Cutbanks cave	0.10
						Depth to saturated zone	0.06
Tugglesgap	30	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
		Slope	0.32	Seepage	0.04	Large stones content	0.01
				Large stones content	0.01		
14C:							
Dillard	50	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Depth to saturated zone	0.86	Slow refill	0.95
		Seepage	0.70	Piping	0.78	Cutbanks cave	0.10
						Depth to saturated zone	0.06
Tugglesgap	30	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
		Slope	1.00	Seepage	0.04	Large stones content	0.01
				Large stones content	0.01		
15B:							
Dillsboro	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.49	Depth to water	1.00
		Slope	0.32				
16C:							
Dillsboro	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.49	Depth to water	1.00
		Seepage	1.00				
17B:							
Evard	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.02	Depth to water	1.00
		Slope	0.32				
Cowee	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.33	Seepage	0.01		
		Slope	0.32				
17C:							
Evard	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
17C:							
Cowee----------------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
17D:							
Evard----------------	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
Cowee----------------	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
17E:							
Evard----------------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
Cowee----------------	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
18B:							
Evard----------------	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.02	Depth to water	1.00
		Slope	0.32				
Cowee----------------	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.33	Seepage	0.01		
		Slope	0.32				
18C:							
Evard----------------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
Cowee----------------	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
18D:							
Evard----------------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				
Cowee----------------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
18E:							
Evard----------------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.02	Depth to water	1.00
		Seepage	0.70				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
18E:							
Cowee----------------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Seepage	0.70	Seepage	0.01		
		Depth to bedrock	0.33				
19B2:							
Fairview------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	0.32				
19C2:							
Fairview------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
19D2:							
Fairview------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
20B:							
Fairview------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	0.32				
20C:							
Fairview------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
20D:							
Fairview------------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
21E:							
Fairview------------	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
Stott Knob----------	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
22E:							
Fairview------------	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
23C:							
Fairystone----------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.83	Seepage	0.05		
		Seepage	0.70	Large stones content	0.01		
Littlejoe-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.26	Depth to water	1.00
		Seepage	0.57				
		Depth to bedrock	0.01				
24D:							
Fairystone----------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.83	Seepage	0.05		
		Seepage	0.70	Large stones content	0.01		
Littlejoe-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.26	Depth to water	1.00
		Seepage	0.57				
		Depth to bedrock	0.01				
25E:							
Fairystone----------	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.98	Depth to water	1.00
		Depth to bedrock	0.83	Seepage	0.05		
		Seepage	0.70	Large stones content	0.01		
Littlejoe-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.26	Depth to water	1.00
		Seepage	0.57				
		Depth to bedrock	0.01				
26A:							
French--------------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.79		
27A:							
French--------------	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.79		
Dellwood------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.80	Cutbanks cave	1.00
				Large stones content	0.14	Large stones content	0.14
				Seepage	0.10	Depth to saturated zone	0.09
28D:							
Goblintown----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.92	Depth to water	1.00
		Seepage	0.70	Thin layer	0.61		
		Depth to bedrock	0.02				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
28D:							
Penhook	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
28E:							
Goblintown	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.92	Depth to water	1.00
		Seepage	0.70	Thin layer	0.61		
		Depth to bedrock	0.02				
Penhook	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
29A:							
Hatboro	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		
30F:							
Hickoryknob	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.99	Depth to water	1.00
		Seepage	0.70	Thin layer	0.99		
		Depth to bedrock	0.66				
Rhodhiss	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
		Slope	1.00				
31C:							
Meadowfield	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.99				
		Depth to bedrock	0.91				
Stott Knob	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
31D:							
Meadowfield	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.99				
		Depth to bedrock	0.91				
Stott Knob	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
32E:							
Meadowfield	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.99				
		Depth to bedrock	0.91				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
32E:							
Stott Knob----------	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
32F:							
Meadowfield---------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.99				
		Depth to bedrock	0.91				
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
33B:							
Minnieville---------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.02	Depth to water	1.00
		Slope	0.32				
33C:							
Minnieville---------	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.02	Depth to water	1.00
		Seepage	0.70				
33D:							
Minnieville---------	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.02	Depth to water	1.00
		Seepage	0.70				
33E:							
Minnieville---------	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.02	Depth to water	1.00
		Seepage	0.70				
34B:							
Minnieville---------	65	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.02	Depth to water	1.00
		Slope	0.32				
Redbrush------------	35	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.56	Thin layer	0.86	Depth to water	1.00
		Slope	0.32	Piping	0.01		
		Seepage	0.01				
34C:							
Minnieville---------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.02	Depth to water	1.00
		Seepage	0.70				
Redbrush------------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.56	Piping	0.01		
		Seepage	0.01				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
34D:							
Minnieville---------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.02	Depth to water	1.00
		Seepage	0.70				
Redbrush------------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.56	Piping	0.01		
		Seepage	0.01				
35A:							
Nikwasi-------------	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.03		
Dellwood------------	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.80	Cutbanks cave	1.00
				Large stones content	0.14	Large stones content	0.14
				Seepage	0.10	Depth to saturated zone	0.09
36D:							
Peaks---------------	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.74	Depth to water	1.00
		Slope	1.00	Large stones content	0.19		
		Depth to bedrock	0.74				
Edneyville----------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
		Slope	1.00				
36E:							
Peaks---------------	65	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.74	Depth to water	1.00
		Slope	1.00	Large stones content	0.19		
		Depth to bedrock	0.74				
Edneyville----------	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
		Slope	1.00				
37F:							
Peaks---------------	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.74	Depth to water	1.00
		Slope	1.00	Large stones content	0.19		
		Depth to bedrock	0.74				
Rock outcrop--------	30	Not rated		Not rated		Not rated	
38C:							
Penhook-------------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
38C:							
Goblintown----------	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.92	Depth to water	1.00
		Seepage	0.70	Thin layer	0.61		
		Depth to bedrock	0.02				
39C:							
Penhook-------------	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
Strawfield----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
39D:							
Penhook-------------	65	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
Strawfield----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
39E:							
Penhook-------------	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
Strawfield----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
40E:							
Rhodhiss------------	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
		Slope	1.00				
Stott Knob----------	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.56		
		Depth to bedrock	0.02				
41B:							
Saunook-------------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Depth to water	1.00
		Slope	0.32				
41C:							
Saunook-------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70				
41D:							
Saunook-------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
42B:							
Saunook-------------	60	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Depth to water	1.00
		Slope	0.32				
Thunder-------------	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Large stones content	1.00	Depth to water	1.00
		Slope	0.32	Seepage	0.03		
42C:							
Saunook-------------	55	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70				
Thunder-------------	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Large stones content	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
42D:							
Saunook-------------	55	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70				
Thunder-------------	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Large stones content	1.00	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
43B:							
Thurmont------------	90	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Piping	0.82	Depth to saturated zone	0.99
		Slope	0.32			Cutbanks cave	0.10
43C:							
Thurmont------------	90	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Piping	0.82	Depth to saturated zone	0.99
		Seepage	1.00			Cutbanks cave	0.10
43D:							
Thurmont------------	90	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Piping	0.82	Depth to saturated zone	0.99
		Seepage	1.00			Cutbanks cave	0.10
44C:							
Thurmont------------	90	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Piping	0.82	Depth to saturated zone	0.99
		Seepage	1.00			Cutbanks cave	0.10
44D:							
Thurmont------------	90	Very limited		Somewhat limited		Somewhat limited	
		Slope	1.00	Piping	0.82	Depth to saturated zone	0.99
		Seepage	1.00			Cutbanks cave	0.10

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
45B:							
Trimont-------------	60	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.01	Depth to water	1.00
		Slope	0.32				
Kibler--------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	0.32	Seepage	0.03		
		Depth to bedrock	0.01				
45C:							
Trimont-------------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler--------------	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
45D:							
Trimont-------------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler--------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
45E:							
Trimont-------------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler--------------	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
46B:							
Trimont-------------	60	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.01	Depth to water	1.00
		Slope	0.32				
Kibler--------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	0.32	Seepage	0.03		
		Depth to bedrock	0.01				
46C:							
Trimont-------------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler--------------	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
46D:							
Trimont	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
46E:							
Trimont	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
Kibler	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				
47C:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	0.99	Depth to water	1.00
		Seepage	1.00				
Cullasaja	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
		Slope	1.00				
47D:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	0.99	Depth to water	1.00
		Seepage	1.00				
Cullasaja	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
		Slope	1.00				
47E:							
Tuckasegee	45	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	0.99	Depth to water	1.00
		Seepage	1.00				
Cullasaja	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.02	Depth to water	1.00
		Slope	1.00				
48:							
Udorthents	90	Not rated		Not rated		Not rated	
49F:							
Widgett	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Large stones content	0.86	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.69	Thin layer	0.70		
Kibler	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.03	Depth to water	1.00
		Slope	1.00	Seepage	0.03		
		Depth to bedrock	0.01				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
50D:							
Widgett-------------	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Large stones content	0.86	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.69	Thin layer	0.70		
Trimont-------------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
50E:							
Widgett-------------	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Large stones content	0.86	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.69	Thin layer	0.70		
Trimont-------------	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
50F:							
Widgett-------------	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Large stones content	0.86	Depth to water	1.00
		Slope	1.00				
		Depth to bedrock	0.69	Thin layer	0.70		
Trimont-------------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.01	Depth to water	1.00
		Seepage	0.70				
51B:							
Woolwine------------	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.91	Depth to water	1.00
		Depth to bedrock	0.37	Piping	0.17		
		Slope	0.32				
Fairview------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	0.32				
51C:							
Woolwine------------	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.70	Piping	0.17		
		Depth to bedrock	0.37				
Fairview------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
51D:							
Woolwine------------	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.70	Piping	0.17		
		Depth to bedrock	0.37				
Fairview------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				

Table 14.—Water Management—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
51E:							
Woolwine------------	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	0.70	Piping	0.17		
		Depth to bedrock	0.37				
Fairview------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Depth to water	1.00
		Slope	1.00				
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 15.—Engineering Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
1D:									
Bellspur--------	0-8	Gravelly loam	SM, SC, CL, CL-ML, ML, SC-SM	A-4, A-2-4	0	0-14	60-100	50-100	45-70
	8-14	Cobbly loam, gravelly sandy clay loam, clay loam	CL, CL-ML, ML, SC-SM, SC, SM	A-6, A-4, A-2-6, A-2-4	0	0-14	70-100	60-100	50-10
	14-32	Sandy loam, gravelly fine sandy loam, cobbly loam	SM, SC-SM, CL-ML, CL, SC, ML	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	32-35	Gravelly loamy sand, sandy loam, gravelly fine sandy loam, cobbly loam	SC-SM, CL-ML, ML, SC, CL, SM	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	35-41	Bedrock			---	---	---	---	---
	41-80	Bedrock			---	---	---	---	---
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Fine sandy loam, channery fine sandy loam, sandy clay loam, loam	SC, CL-ML, SC-SM, CL	A-4	0	0-30	80-100	70-100	50-95
	32-54	Very paragravelly fine sandy loam, fine sandy loam, channery sandy loam, loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
1E:									
Bellspur--------	0-8	Gravelly loam	SM, CL, SC, SC-SM, ML, CL-ML	A-4, A-2-4	0	0-14	60-100	50-100	45-70
	8-14	Clay loam, gravelly sandy clay loam, cobbly loam	SM, ML, CL-ML, SC-SM, SC, CL	A-6, A-4, A-2-6, A-2-4	0	0-14	70-100	60-100	50-10
	14-32	Sandy loam, cobbly loam, gravelly fine sandy loam	SM, CL, CL-ML, ML, SC, SC-SM	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	32-35	Gravelly fine sandy loam, gravelly loamy sand, sandy loam, cobbly loam	ML, CL, CL-ML, SC, SC-SM, SM	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	35-41	Bedrock			---	---	---	---	---
	41-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1E:									
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	SC-SM, CL-ML	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, sandy clay loam, fine sandy loam	SC, SC-SM, CL-ML, CL	A-4	0	0-30	80-100	70-100	50-95
	32-54	Fine sandy loam, very paragravelly fine sandy loam, channery sandy loam, loam	SC-SM, SM, ML, CL-ML, SC, CL	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
2C:									
Bellspur--------	0-8	Gravelly loam	ML, CL-ML, CL, SM, SC-SM, SC	A-4, A-2-4	0	0-14	60-100	50-100	45-70
	8-14	Cobbly loam, gravelly sandy clay loam, clay loam	CL-ML, CL, ML, SC, SC-SM, SM	A-6, A-4, A-2-6, A-2-4	0	0-14	70-100	60-100	50-10
	14-32	Cobbly loam, gravelly fine sandy loam, sandy loam	SM, SC-SM, CL, CL-ML, ML, SC	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	32-35	Cobbly loam, gravelly fine sandy loam, sandy loam, gravelly loamy sand	CL-ML, SC-SM, SC, ML, CL, SM	A-4, A-2-4	0	0-14	70-100	60-100	35-95
	35-41	Bedrock			---	---	---	---	---
	41-80	Bedrock			---	---	---	---	---
Trimont---------	0-10	Fine sandy loam, loam	ML, CL-ML, SM, SC-SM	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Fine sandy loam, channery sandy loam, loam	SC-SM, SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	Percentage pass sieve number-: 10	Percentage pass sieve number-: 40
	In				Pct	Pct			
3C:									
Bluemount-------	0-4	Cobbly fine sandy loam, gravelly loam, gravelly silt loam	SC-SM, SC, CL-ML, CL	A-4, A-6	0	10-19	56-80	54-79	46-79
	4-14	Very cobbly clay loam, gravelly clay loam, gravelly silt loam, loam	SC, CL	A-6, A-7-6	0	0-28	42-100	39-100	34-10
	14-24	Loam, very cobbly clay loam, gravelly clay loam, gravelly silt loam	SC, CL	A-6, A-7-6	0	0-64	46-100	44-100	36-98
	24-80	Bedrock			---	---	---	---	---
3D:									
Bluemount-------	0-4	Gravelly loam, gravelly silt loam, cobbly fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	10-19	56-80	54-79	46-79
	4-14	Gravelly clay loam, loam, very cobbly clay loam, gravelly silt loam	SC, CL	A-6, A-7-6	0	0-28	42-100	39-100	34-10
	14-24	Very cobbly clay loam, loam, gravelly silt loam, gravelly clay loam	SC, CL	A-6, A-7-6	0	0-64	46-100	44-100	36-98
	24-80	Bedrock			---	---	---	---	---
3E:									
Bluemount-------	0-4	Cobbly fine sandy loam, gravelly loam, gravelly silt loam	SC, CL-ML, CL, SC-SM	A-4, A-6	0	10-19	56-80	54-79	46-79
	4-14	Loam, very cobbly clay loam, gravelly clay loam, gravelly silt loam	SC, CL	A-6, A-7-6	0	0-28	42-100	39-100	34-10
	14-24	Loam, very cobbly clay loam, gravelly clay loam, gravelly silt loam	SC, CL	A-6, A-7-6	0	0-64	46-100	44-100	36-98
	24-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
4B:									
Braddock--------	0-9	Fine sandy loam, sandy loam, loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0	0-20	85-100	75-100	45-95
	9-56	Clay, clay loam, gravelly clay, cobbly clay, sandy clay	MH, ML, CH, CL	A-7	0	0-20	85-100	75-100	65-10
	56-60	Clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-30	0-30	85-100	75-100	45-10
4C:									
Braddock--------	0-9	Fine sandy loam, sandy loam, loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0	0-20	85-100	75-100	45-95
	9-56	Clay, clay loam, gravelly clay, cobbly clay, sandy clay	MH, ML, CH, CL	A-7	0	0-20	85-100	75-100	65-10
	56-60	Clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-30	0-30	85-100	75-100	45-10
4D:									
Braddock--------	0-9	Fine sandy loam, sandy loam, loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0	0-20	85-100	75-100	45-95
	9-56	Clay, clay loam, gravelly clay, cobbly clay, sandy clay	MH, ML, CH, CL	A-7	0	0-20	85-100	75-100	65-10
	56-60	Clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-30	0-30	85-100	75-100	45-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
5B:									
Braddock--------	0-9	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0-50	15-50	75-100	50-100	30-95
	9-56	Clay, clay loam, cobbly clay, sandy clay, very stony clay, gravelly clay	MH, ML, CH, CL, SM, SC	A-7, A-6	0-50	15-50	75-100	50-100	45-95
	56-60	Cobbly clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-50	0-50	45-100	25-100	15-10
5C:									
Braddock--------	0-9	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0-50	15-50	75-100	50-100	30-95
	9-56	Clay, clay loam, cobbly clay, sandy clay, very stony clay, gravelly clay	MH, ML, CH, CL, SM, SC	A-7, A-6	0-50	15-50	75-100	50-100	45-95
	56-60	Cobbly clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-50	0-50	45-100	25-100	15-10
5D:									
Braddock--------	0-9	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	SC-SM, CL-ML, CL, ML, SC, SM	A-4, A-2-4	0-50	15-50	75-100	50-100	30-95
	9-56	Clay, clay loam, cobbly clay, sandy clay, very stony clay, gravelly clay	MH, ML, CH, CL, SM, SC	A-7, A-6	0-50	15-50	75-100	50-100	45-95
	56-60	Cobbly clay loam, sandy clay loam, loam, very cobbly clay loam, gravelly fine sandy loam, extremely stony fine sandy loam, sandy loam, sandy clay, clay	CL, SC, SC-SM, CL-ML	A-6, A-2, A-4, A-5, A-7	0-50	0-50	45-100	25-100	15-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
6F:									
Bugley----------	0-3	Channery silt loam, channery loam	CL, CL-ML, SC-SM, SM, ML, SC	A-4, A-6	0	12-24	76-90	68-87	58-87
	3-13	Very channery silt loam, channery silt loam, extremely channery silt loam	CL-ML, CL, SC, GC-GM, GC, SC-SM	A-1, A-2-4, A-4, A-6	0	22-42	44-78	27-72	24-72
	13-18	Bedrock			---	---	---	---	---
	18-80	Bedrock			---	---	---	---	---
Littlejoe-------	0-8	Loam, fine sandy loam	CL-ML, CL, SC, SC-SM	A-4	0	0-14	84-100	84-100	68-96
	8-45	Channery silty clay, clay, clay loam	CL, CH, MH	A-7	0	0-15	82-100	82-100	60-10
	45-59	Bedrock			---	---	---	---	---
	59-80	Bedrock			---	---	---	---	---
7C:									
Cliffield-------	0-3	Very cobbly fine sandy loam, very cobbly loam, very gravelly sandy loam	GC-GM, GC, GM, SC, SC-SM, SM	A-1, A-2-4, A-2	0	35-54	45-68	42-66	36-66
	3-6	Very cobbly loam, extremely cobbly sandy loam, cobbly fine sandy loam	SC-SM, SC, CL-ML, CL, GC, GC-GM, GM	A-1, A-2-4, A-4	0-16	19-64	27-89	23-89	18-85
	6-23	Cobbly loam, very cobbly sandy clay loam, extremely cobbly sandy clay loam, cobbly clay loam	SC, GC, GC-GM	A-2-4, A-6	0-16	28-64	27-78	23-77	18-73
	23-80	Bedrock			---	---	---	---	---
Evard-----------	0-4	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	SM, SC-SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, sandy clay loam, gravelly clay loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Loamy sand, sandy loam, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
7D:									
Cliffield-------	0-3	Very cobbly fine sandy loam, very gravelly sandy loam, very cobbly loam	GM, SC, SC-SM, SM, GC, GC-GM	A-1, A-2-4, A-2	0	35-54	45-68	42-66	36-66
	3-6	Extremely cobbly sandy loam, cobbly fine sandy loam, very cobbly loam	SC-SM, GM, GC-GM, GC, SC, CL-ML, CL	A-1, A-2-4, A-4	0-16	19-64	27-89	23-89	18-85
	6-23	Very cobbly sandy clay loam, cobbly loam, cobbly clay loam, extremely cobbly sandy clay loam	SC, GC, GC-GM	A-2-4, A-6	0-16	28-64	27-78	23-77	18-73
	23-80	Bedrock			---	---	---	---	---
Evard-----------	0-4	Cobbly sandy loam, gravelly fine sandy loam, gravelly loam	SC, SM, SC-SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, sandy clay loam, gravelly clay loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Gravelly fine sandy loam, loamy sand, sandy loam	SC-SM, SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
7E:									
Cliffield-------	0-3	Very gravelly sandy loam, very cobbly loam, very cobbly fine sandy loam	SC, SC-SM, GM, GC-GM, GC, SM	A-1, A-2-4, A-2	0	35-54	45-68	42-66	36-66
	3-6	Cobbly fine sandy loam, extremely cobbly sandy loam, very cobbly loam	SC-SM, CL-ML, CL, SC, GC-GM, GM, GC	A-1, A-2-4, A-4	0-16	19-64	27-89	23-89	18-85
	6-23	Cobbly loam, very cobbly sandy clay loam, extremely cobbly sandy clay loam, cobbly clay loam	SC, GC, GC-GM	A-2-4, A-6	0-16	28-64	27-78	23-77	18-73
	23-80	Bedrock			---	---	---	---	---
Evard-----------	0-4	Cobbly sandy loam, gravelly fine sandy loam, gravelly loam	SM, SC-SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Gravelly clay loam, sandy clay loam, loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Sandy loam, loamy sand, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage pass sieve number- 4	10	40
	In				Pct	Pct			
7F:									
Cliffield-------	0-3	Very gravelly sandy loam, very cobbly fine sandy loam, very cobbly loam	SM, SC-SM, GC, SC, GM, GC-GM	A-1, A-2-4, A-2	0	35-54	45-68	42-66	36-66
	3-6	Cobbly fine sandy loam, very cobbly loam, extremely cobbly sandy loam	CL-ML, GC-GM, GC, SC, CL, GM, SC-SM	A-1, A-2-4, A-4	0-16	19-64	27-89	23-89	18-85
	6-23	Cobbly loam, very cobbly sandy clay loam, cobbly clay loam, extremely cobbly sandy clay loam	GC-GM, SC, GC	A-2-4, A-6	0-16	28-64	27-78	23-77	18-73
	23-80	Bedrock			---	---	---	---	---
Evard-----------	0-4	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	SM, SC-SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, sandy clay loam, gravelly clay loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Gravelly fine sandy loam, loamy sand, sandy loam	SC-SM, SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
8B2:									
Clifford--------	0-7	Sandy clay loam, loam, fine sandy loam	SM, SC-SM	A-4	0	0-9	83-100	82-100	72-98
	7-54	Clay, clay loam	CL	A-6, A-7-6	0	0-9	81-100	80-100	72-10
	54-62	Loam, sandy clay loam, clay loam	ML, CL, CL-ML, SC-SM, SM, SC	A-6, A-4	0	0-9	81-100	80-100	57-10
	62-82	Fine sandy loam, loam, clay loam	SC, CL-ML, ML, CL, SC-SM, SM	A-4, A-6	0	0-9	81-100	80-100	67-10
8C2:									
Clifford--------	0-7	Loam, sandy clay loam, fine sandy loam	SC-SM, SM	A-4	0	0-9	83-100	82-100	72-98
	7-54	Clay, clay loam	CL	A-6, A-7-6	0	0-9	81-100	80-100	72-10
	54-62	Loam, sandy clay loam, clay loam	ML, CL, CL-ML, SC-SM, SM, SC	A-6, A-4	0	0-9	81-100	80-100	57-10
	62-82	Fine sandy loam, loam, clay loam	SC-SM, SM, SC, CL-ML, ML, CL	A-4, A-6	0	0-9	81-100	80-100	67-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
9A:									
Colvard---------	0-12	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM, ML, SM	A-2-4, A-4	0	0	84-100	76-100	46-95
	12-43	Fine sandy loam, sandy loam, loam, sand	SC-SM, SW-SM, SM, CL-ML, ML	A-2-4, A-4, A-1	0	0	84-100	76-100	38-95
	43-62	Fine sandy loam, sandy loam, loam, sand, gravelly sand	SM, ML, CL-ML, SC-SM, SW-SM	A-2-4, A-4, A-1	0	0	84-100	76-100	38-95
Suches----------	0-12	Loam, fine sandy loam, sandy loam	CL-ML, SC-SM, ML, SM, SC, CL	A-4, A-2-4	0	0	90-100	75-100	50-95
	12-54	Clay loam, loam, sandy clay loam, sandy loam, fine sandy loam, silt loam	CL, SC-SM, SC, CL-ML	A-6, A-4, A-5, A-7	0	0	90-100	75-100	65-10
	54-60	Loam, sandy clay loam, clay loam, gravelly loamy sand, gravelly sandy loam, fine sandy loam, silt loam	CL, SC-SM, ML, SM, SC, CL-ML	A-4, A-1-b, A-2-4, A-2-6, A-6	0	0	70-100	50-100	35-10
10A:									
Comus-----------	0-12	Fine sandy loam, loam, sandy loam	SC-SM, SM	A-2-4, A-4	0	0-9	81-100	81-100	69-99
	12-47	Loam, fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-9	81-100	81-100	69-99
	47-62	Loamy sand, gravelly sandy loam, loam	SM, SC, SC-SM	A-1, A-2-4	0	0-16	60-100	59-100	45-99
Elsinboro-------	0-11	Loam, fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0-9	82-100	81-100	67-92
	11-38	Clay loam, sandy clay loam, loam	CL	A-6	0	0-9	83-100	82-100	67-99
	38-60	Loam, fine sandy loam, sandy loam	SC, SC-SM, SM	A-2-4, A-4	0	0-8	83-100	83-100	55-86

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	Percentage pass sieve number-: 10	Percentage pass sieve number-: 40
	In				Pct	Pct			
11B:									
Dillard---------	0-10	Fine sandy loam, sandy loam, loam	SC-SM, CL, ML, SM, SC, CL-ML	A-4	0	0	95-100	90-100	60-95
	10-30	Sandy clay loam, clay loam, loam	SC, CL, SC-SM, CL-ML	A-4, A-2-4, A-2-6	0	0	95-100	75-100	60-10
	30-48	Clay, clay loam, sandy clay, sandy clay loam	ML, CL, SM, SC	A-7, A-2, A-5, A-6	0	0	90-100	75-100	60-10
	48-62	Clay loam, stratified clay to gravelly sand	CL, SC-SM, ML, SM, SC, CL-ML, SP-SC, SP-SM	A-6, A-1, A-2, A-4, A-5, A-7	0	0	95-100	50-100	30-10
12C:									
Dillard---------	0-10	Fine sandy loam, sandy loam, loam	SC-SM, CL, ML, SM, SC, CL-ML	A-4	0	0	95-100	90-100	60-95
	10-30	Sandy clay loam, clay loam, loam	SC, CL, SC-SM, CL-ML	A-4, A-2-4, A-2-6	0	0	95-100	75-100	60-10
	30-48	Clay, clay loam, sandy clay, sandy clay loam	ML, CL, SM, SC	A-7, A-2, A-5, A-6	0	0	90-100	75-100	60-10
	48-62	Clay loam, stratified clay to gravelly sand	CL, SC-SM, ML, SM, SC, CL-ML, SP-SC, SP-SM	A-6, A-1, A-2, A-4, A-5, A-7	0	0	95-100	50-100	30-10
13B:									
Dillard---------	0-10	Fine sandy loam, sandy loam, loam	SC-SM, CL, ML, SM, SC, CL-ML	A-4	0	0	95-100	90-100	60-95
	10-30	Sandy clay loam, clay loam, loam	SC, CL, SC-SM, CL-ML	A-4, A-2-4, A-2-6	0	0	95-100	75-100	60-10
	30-48	Clay, clay loam, sandy clay, sandy clay loam	ML, CL, SM, SC	A-7, A-2, A-5, A-6	0	0	90-100	75-100	60-10
	48-62	Clay loam, stratified clay to gravelly sand	CL, SC-SM, ML, SM, SC, CL-ML, SP-SC, SP-SM	A-6, A-1, A-2, A-4, A-5, A-7	0	0	95-100	50-100	30-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
13B:									
Tugglesgap------	0-7	Extremely gravelly loam, very gravelly loam, gravelly sandy loam, very cobbly loam, sandy loam, loam	CL-ML, ML, SC, SM	A-1, A-2, A-4	0	8-30	55-95	35-90	20-80
	7-21	Very cobbly loam, very gravelly sandy clay loam, extremely gravelly clay loam	SC, GM, SM, GC	A-1, A-2, A-6	0	20-50	60-80	50-70	40-70
	21-35	Clay loam, very gravelly loam, very cobbly sandy clay loam, extremely gravelly clay loam	GM, SM, GC, SC	A-1, A-2, A-6	0	20-50	60-80	50-70	40-70
	35-50	Gravelly loam, fine sandy loam, very gravelly sandy loam, very cobbly sandy loam	SC, GC, GC-GM, GM, GP-GM	A-4, A-1, A-2-4	0	8-35	45-90	40-85	25-80
	50-64	Sandy clay loam, loam, gravelly sandy loam, extremely paragravelly fine sandy loam, silt loam	CL, SM, SC-SM, SC, CL-ML	A-6, A-4, A-2-4	0	0-15	70-100	60-100	35-10
14C:									
Dillard---------	0-10	Fine sandy loam, sandy loam, loam	SC-SM, CL, ML, SM, SC, CL-ML	A-4	0	0	95-100	90-100	60-95
	10-30	Sandy clay loam, clay loam, loam	SC, CL, SC-SM, CL-ML	A-4, A-2-4, A-2-6	0	0	95-100	75-100	60-10
	30-48	Clay, clay loam, sandy clay, sandy clay loam	ML, CL, SM, SC	A-7, A-2, A-5, A-6	0	0	90-100	75-100	60-10
	48-62	Clay loam, stratified clay to gravelly sand	CL, SC-SM, ML, SM, SC, CL-ML, SP-SC, SP-SM	A-6, A-1, A-2, A-4, A-5, A-7	0	0	95-100	50-100	30-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
14C:									
Tugglesgap------	0-7	Very gravelly loam, extremely gravelly loam, gravelly sandy loam, very cobbly loam, sandy loam, loam	SM, SC, CL-ML, ML	A-1, A-2, A-4	0	8-30	55-95	35-90	20-80
	7-21	Very cobbly loam, very gravelly sandy clay loam, extremely gravelly clay loam	SM, SC, GM, GC	A-1, A-2, A-6	0	20-50	60-80	50-70	40-70
	21-35	Clay loam, very gravelly loam, very cobbly sandy clay loam, extremely gravelly clay loam	GM, GC, SC, SM	A-1, A-2, A-6	0	20-50	60-80	50-70	40-70
	35-50	Gravelly loam, fine sandy loam, very gravelly sandy loam, very cobbly sandy loam	SC, GP-GM, GC, GC-GM, GM	A-4, A-1, A-2-4	0	8-35	45-90	40-85	25-80
	50-64	Gravelly sandy loam, silt loam, extremely paragravelly fine sandy loam, loam, sandy clay loam	SM, CL, CL-ML, SC, SC-SM	A-6, A-4, A-2-4	0	0-15	70-100	60-100	35-10
15B:									
Dillsboro-------	0-10	Cobbly loam	SM, SC-SM, SC, CL, CL-ML, ML	A-4, A-2-4	0	7-25	60-90	50-85	40-80
	10-45	Clay loam, clay, gravelly clay loam, gravelly clay	CH, CL	A-6, A-7-6	0	0-25	75-100	70-100	65-10
	45-60	Gravelly sandy clay loam, gravelly loam, cobbly clay loam, clay loam, sandy clay loam, loam	CL-ML, CL, ML, SC, SC-SM, SM	A-7-6, A-6, A-4, A-2-4	0	0-35	65-100	50-100	40-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
16C:									
Dillsboro-------	0-10	Loam	SM, CL-ML, SC-SM, ML, CL	A-4	0	0-25	80-100	70-100	65-95
	10-45	Clay loam, clay, gravelly clay loam, gravelly clay	CL, CH	A-6, A-7-6	0	0-25	75-100	70-100	65-10
	45-60	Loam, gravelly loam, sandy clay loam, clay loam, cobbly clay loam, gravelly sandy clay loam	CL-ML, ML, SC, SC-SM, CL, SM	A-7-6, A-6, A-4, A-2-4	0	0-35	65-100	50-100	40-10
17B:									
Evard-----------	0-4	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	SC, SC-SM, SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Gravelly clay loam, sandy clay loam, loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Loamy sand, gravelly fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
Cowee-----------	0-3	Cobbly fine sandy loam, cobbly loam, gravelly sandy loam	SM, SC-SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Sandy clay loam, gravelly loam, clay loam	SC, CL	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Fine sandy loam, sandy clay loam, gravelly loam	ML, CL-ML, CL, SC, SC-SM, SM	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
17C:									
Evard-----------	0-4	Gravelly fine sandy loam, gravelly loam, cobbly sandy loam	SM, SC-SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Gravelly clay loam, sandy clay loam, loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Sandy loam, loamy sand, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
17C:									
Cowee-----------	0-3	Cobbly loam, gravelly sandy loam, cobbly fine sandy loam	SM, SC-SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Gravelly loam, sandy clay loam, clay loam	CL, SC	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Fine sandy loam, gravelly loam, sandy clay loam	CL, SM, SC, SC-SM, ML, CL-ML	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
17D:									
Evard-----------	0-4	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	SM, SC-SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, sandy clay loam, gravelly clay loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Gravelly fine sandy loam, loamy sand, sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
Cowee-----------	0-3	Cobbly fine sandy loam, cobbly loam, gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Gravelly loam, sandy clay loam, clay loam	SC, CL	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Sandy clay loam, fine sandy loam, gravelly loam	CL, CL-ML, SC, SC-SM, SM, ML	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
17E:									
Evard-----------	0-4	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	SC, SC-SM, SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, sandy clay loam, gravelly clay loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Loamy sand, gravelly fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
17E:									
Cowee-----------	0-3	Cobbly fine sandy loam, gravelly sandy loam, cobbly loam	SM, SC-SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Clay loam, sandy clay loam, gravelly loam	CL, SC	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Fine sandy loam, sandy clay loam, gravelly loam	ML, SC, SC-SM, SM, CL-ML, CL	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
18B:									
Evard-----------	0-4	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	SC, SC-SM, SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Gravelly clay loam, sandy clay loam, loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Sandy loam, loamy sand, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
Cowee-----------	0-3	Cobbly fine sandy loam, gravelly sandy loam, cobbly loam	SC-SM, SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Clay loam, sandy clay loam, gravelly loam	SC, CL	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Sandy clay loam, gravelly loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
18C:									
Evard-----------	0-4	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	SC, SC-SM, SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Gravelly clay loam, sandy clay loam, loam	SC, CL	A-6	0	0-17	60-100	58-100	47-99
	33-72	Gravelly fine sandy loam, loamy sand, sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
18C:									
Cowee-----------	0-3	Gravelly sandy loam, cobbly fine sandy loam, cobbly loam	SC-SM, SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Clay loam, sandy clay loam, gravelly loam	SC, CL	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Sandy clay loam, gravelly loam, fine sandy loam	ML, SC, SC-SM, CL-ML, CL, SM	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
18D:									
Evard-----------	0-4	Gravelly loam, gravelly fine sandy loam, cobbly sandy loam	SC, SC-SM, SM	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Sandy clay loam, gravelly clay loam, loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Gravelly fine sandy loam, loamy sand, sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10
Cowee-----------	0-3	Cobbly fine sandy loam, gravelly sandy loam, cobbly loam	SM, SC-SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Gravelly loam, sandy clay loam, clay loam	CL, SC	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Gravelly loam, fine sandy loam, sandy clay loam	CL, ML, SC, SC-SM, SM, CL-ML	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
18E:									
Evard-----------	0-4	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	SC-SM, SM, SC	A-1, A-4, A-2-4	0-8	0-16	59-77	57-76	47-76
	4-33	Loam, gravelly clay loam, sandy clay loam	CL, SC	A-6	0	0-17	60-100	58-100	47-99
	33-72	Sandy loam, loamy sand, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4, A-1, A-2	0	0-18	58-100	56-100	48-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
18E:									
Cowee-----------	0-3	Gravelly sandy loam, cobbly loam, cobbly fine sandy loam	SC-SM, SM	A-2-4, A-4	0-9	9-18	56-81	54-81	44-75
	3-18	Clay loam, sandy clay loam, gravelly loam	CL, SC	A-6, A-2-4	0	0-15	63-100	61-100	48-95
	18-30	Fine sandy loam, gravelly loam, sandy clay loam	CL, CL-ML, ML, SC, SC-SM, SM	A-6, A-4, A-2-4, A-1	0	0-15	62-100	60-100	49-10
	30-43	Bedrock			---	---	---	---	---
	43-80	Bedrock			---	---	---	---	---
19B2:									
Fairview--------	0-9	Sandy clay loam, clay loam, loam	SM, SC-SM, ML	A-4, A-2-4	0	0-22	90-100	75-100	60-10
	9-23	Clay loam, gravelly clay loam, clay	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Clay loam, sandy clay loam, gravelly fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, SC, CL-ML, ML, CL	A-4, A-2-4	0	0-9	74-100	73-100	62-10
19C2:									
Fairview--------	0-9	Sandy clay loam, clay loam, loam	SM, SC-SM, ML	A-4, A-2-4	0	0-22	90-100	75-100	60-10
	9-23	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Gravelly fine sandy loam, sandy clay loam, clay loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, sandy loam, fine sandy loam	ML, CL-ML, SC, SM, SC-SM, CL	A-4, A-2-4	0	0-9	74-100	73-100	62-10
19D2:									
Fairview--------	0-9	Sandy clay loam, clay loam, loam	SM, SC-SM, ML	A-4, A-2-4	0	0-22	90-100	75-100	60-10
	9-23	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Gravelly fine sandy loam, clay loam, sandy clay loam	ML, CL, SC, SC-SM, SM, CL-ML	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Sandy loam, gravelly loam, fine sandy loam	CL, SC-SM, SM, SC, ML, CL-ML	A-4, A-2-4	0	0-9	74-100	73-100	62-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
20B:									
Fairview--------	0-9	Cobbly loam, cobbly sandy loam, cobbly fine sandy loam	SM, SC-SM	A-2-4, A-4	0	0-50	70-100	65-100	60-98
	9-23	Clay loam, gravelly clay loam, clay	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-100
	23-29	Gravelly fine sandy loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL, CL-ML	A-4, A-6	0	0-9	74-100	73-100	53-100
	29-80	Gravelly loam, fine sandy loam, sandy loam	SC-SM, SM, SC, CL-ML, ML, CL	A-2-4, A-4	0	0-9	74-100	73-100	62-100
20C:									
Fairview--------	0-9	Cobbly sandy loam, cobbly fine sandy loam, cobbly loam	SC-SM, SM	A-2-4, A-4	0	0-50	70-100	65-100	60-98
	9-23	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-100
	23-29	Sandy clay loam, gravelly fine sandy loam, clay loam	SC-SM, SC, ML, CL-ML, SM, CL	A-4, A-6	0	0-9	74-100	73-100	53-100
	29-80	Sandy loam, fine sandy loam, gravelly loam	CL, ML, CL-ML, SC, SM, SC-SM	A-2-4, A-4	0	0-9	74-100	73-100	62-100
20D:									
Fairview--------	0-9	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	SM, SC-SM	A-2-4, A-4	0	0-50	70-100	65-100	60-98
	9-23	Clay loam, clay, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-100
	23-29	Gravelly fine sandy loam, sandy clay loam, clay loam	CL-ML, CL, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-100
	29-80	Fine sandy loam, sandy loam, gravelly loam	SM, ML, SC-SM, SC, CL-ML, CL	A-2-4, A-4	0	0-9	74-100	73-100	62-100

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
21E:									
Fairview--------	0-9	Loam, sandy loam, fine sandy loam	SM, SC-SM	A-2-4, A-4	0	0-9	83-100	82-100	72-98
	9-23	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Sandy clay loam, clay loam, gravelly fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Sandy loam, fine sandy loam, gravelly loam	ML, CL-ML, SC, SM, SC-SM, CL	A-2-4, A-4	0	0-9	74-100	73-100	62-10
Stott Knob------	0-4	Fine sandy loam, loam	SC-SM, CL-ML, ML, SM	A-4	0	0-4	79-100	78-100	64-94
	4-19	Clay loam, loam, channery loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Gravelly loam, sandy loam, channery fine sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	66-100	64-100	52-94
	31-38	Channery fine sandy loam, flaggy loam, sandy loam	CL-ML, SC-SM, ML, SM, GC-GM, GM, GW-GM	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---
22E:									
Fairview--------	0-9	Cobbly loam, cobbly sandy loam, cobbly fine sandy loam	SM, SC-SM	A-2-4, A-4	0	0-50	70-100	65-100	60-98
	9-23	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Sandy clay loam, gravelly fine sandy loam, clay loam	CL-ML, CL, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, fine sandy loam, sandy loam	SC, SM, CL, ML, CL-ML, SC-SM	A-2-4, A-4	0	0-9	74-100	73-100	62-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
22E:									
Stott Knob------	0-4	Cobbly fine sandy loam, cobbly loam	CL-ML, ML, SM, SC-SM	A-4	0	0-50	79-100	78-100	64-94
	4-19	Channery loam, clay loam, loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Sandy loam, gravelly loam, channery fine sandy loam	ML, SC-SM, SM, CL-ML	A-4	0	0-4	66-100	64-100	52-94
	31-38	Flaggy loam, channery fine sandy loam, sandy loam	GM, GC-GM, SM, SC-SM, ML, CL-ML, GW-GM	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---
23C:									
Fairystone------	0-5	Silt loam, channery loam, fine sandy loam, clay loam	CL, SC-SM, SC, CL-ML	A-2-4, A-6, A-4	0	0-14	76-100	67-100	47-10
	5-9	Channery silt loam, channery clay loam, very channery silty clay loam, loam	CL, SC	A-6, A-2-4, A-7-6	0	19-32	64-83	53-78	45-78
	9-17	Very channery clay, very channery silty clay, channery clay loam	SC, MH	A-7-5, A-7-6, A-2-6	0	22-36	56-78	43-72	39-72
	17-24	Very channery clay, extremely channery clay loam	GC	A-7-6, A-2-7, A-2-6	0	32-47	32-64	11-53	10-53
	24-31	Bedrock			---	---	---	---	---
	31-80	Bedrock			---	---	---	---	---
Littlejoe-------	0-8	Loam, fine sandy loam	SC-SM, CL-ML, CL, SC	A-4	0	0-14	84-100	84-100	68-96
	8-45	Clay loam, channery silty clay, clay	CH, CL, MH	A-7	0	0-15	82-100	82-100	60-10
	45-59	Bedrock			---	---	---	---	---
	59-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
24D:									
Fairystone------	0-5	Fine sandy loam, silt loam, channery loam, clay loam	SC-SM, SC, CL-ML, CL	A-2-4, A-6, A-4	0	0-14	76-100	67-100	47-10
	5-9	Very channery silty clay loam, loam, channery clay loam, channery silt loam	CL, SC	A-6, A-2-4, A-7-6	0	19-32	64-83	53-78	45-78
	9-17	Channery clay loam, very channery silty clay, very channery clay	MH, SC	A-7-5, A-7-6, A-2-6	0	22-36	56-78	43-72	39-72
	17-24	Very channery clay, extremely channery clay loam	GC	A-7-6, A-2-7, A-2-6	0	32-47	32-64	11-53	10-53
	24-31	Bedrock			---	---	---	---	---
	31-80	Bedrock			---	---	---	---	---
Littlejoe-------	0-8	Loam, fine sandy loam	CL, CL-ML, SC-SM, SC	A-4	0	0-14	84-100	84-100	68-96
	8-45	Clay, channery silty clay, clay loam	MH, CL, CH	A-7	0	0-15	82-100	82-100	60-10
	45-59	Bedrock			---	---	---	---	---
	59-80	Bedrock			---	---	---	---	---
25E:									
Fairystone------	0-5	Silt loam, fine sandy loam, clay loam, channery loam	CL, CL-ML, SC, SC-SM	A-2-4, A-6, A-4	0	0-14	76-100	67-100	47-10
	5-9	Very channery silty clay loam, channery clay loam, channery silt loam, loam	CL, SC	A-6, A-2-4, A-7-6	0	19-32	64-83	53-78	45-78
	9-17	Very channery clay, very channery silty clay, channery clay loam	MH, SC	A-7-5, A-7-6, A-2-6	0	22-36	56-78	43-72	39-72
	17-24	Very channery clay, extremely channery clay loam	GC	A-7-6, A-2-7, A-2-6	0	32-47	32-64	11-53	10-53
	24-31	Bedrock			---	---	---	---	---
	31-80	Bedrock			---	---	---	---	---
Littlejoe-------	0-8	Fine sandy loam, loam	SC, CL, CL-ML, SC-SM	A-4	0	0-14	84-100	84-100	68-96
	8-45	Clay loam, clay, channery silty clay	MH, CH, CL	A-7	0	0-15	82-100	82-100	60-10
	45-59	Bedrock			---	---	---	---	---
	59-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
26A:									
French----------	0-10	Loam	SM, SC-SM, ML, CL, CL-ML	A-4	0	0	80-100	75-100	65-95
	10-24	Sandy loam, fine sandy loam, loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0	80-100	75-100	45-10
	24-36	Loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam	SM, SC-SM, SC	A-2-4, A-4	0	0	80-100	75-100	40-85
	36-60	Extremely gravelly sand, very cobbly sand, very gravelly loamy sand, very gravelly sandy loam, extremely gravelly loam, very gravelly silt loam, very gravelly sandy clay loam, extremely gravelly clay loam	GM, GP-GM, SM, SP-SM, GW, SC, SW-SM	A-1, A-6, A-2-4	0	8-25	30-65	10-50	5-50
27A:									
French----------	0-10	Loam	CL-ML, CL, ML, SM, SC-SM	A-4	0	0	80-100	75-100	65-95
	10-24	Sandy loam, fine sandy loam, loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0	80-100	75-100	45-10
	24-36	Loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam	SM, SC-SM, SC	A-2-4, A-4	0	0	80-100	75-100	40-85
	36-60	Extremely gravelly sand, very cobbly sand, very gravelly loamy sand, very gravelly sandy loam, extremely gravelly loam, very gravelly silt loam, very gravelly sandy clay loam, extremely gravelly clay loam	SC, SP-SM, SW-SM, GM, GW, SM, GP-GM	A-1, A-6, A-2-4	0	8-25	30-65	10-50	5-50

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number—: 4	10	40
	In				Pct	Pct			
27A:									
Dellwood--------	0-8	Gravelly fine sandy loam, cobbly sandy loam	SC-SM, SM	A-4, A-2-4, A-2	0	17-32	71-90	70-90	51-74
	8-18	Gravelly sandy loam, very cobbly sandy loam, cobbly sandy loam, very gravelly fine sandy loam	SC-SM, SM	A-1, A-4, A-2-4, A-2	0	16-48	50-91	48-91	35-75
	18-60	Cobbly sand, very cobbly loamy sand, gravelly sand	SM, SW-SM	A-1, A-2-4	0-8	8-30	36-83	33-83	25-69
28D:									
Goblintown------	0-6	Fine sandy loam, silt loam, loam	SC, CL-ML, SC-SM, SM, CL, ML	A-4	0	0-9	80-100	80-100	63-97
	6-20	Channery clay loam, clay, channery silty clay	CL	A-6, A-7-6	0-5	0-25	73-100	72-100	61-10
	20-37	Channery very fine sandy loam, very channery loam, silty clay loam	SC-SM, CL, CL-ML	A-4, A-6	0-11	0-26	77-100	76-100	66-10
	37-80	Bedrock			---	---	---	---	---
Penhook---------	0-6	Loam	CL, CL-ML, ML	A-4	0	0-9	81-100	81-100	63-98
	6-43	Channery silty clay, clay loam, clay	CL, CH, MH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Silt loam, loam, channery loam	CL-ML, ML, CL	A-4	0	0	100	100	77-99
28E:									
Goblintown------	0-6	Silt loam, loam, fine sandy loam	ML, SC-SM, SM, SC, CL, CL-ML	A-4	0	0-9	80-100	80-100	63-97
	6-20	Channery silty clay, channery clay loam, clay	CL	A-6, A-7-6	0-5	0-25	73-100	72-100	61-10
	20-37	Very channery loam, channery very fine sandy loam, silty clay loam	SC-SM, CL, CL-ML	A-4, A-6	0-11	0-26	77-100	76-100	66-10
	37-80	Bedrock			---	---	---	---	---
		silt loam							

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
28E:									
Penhook---------	0-6	Loam	CL, CL-ML, ML	A-4	0	0-9	81-100	81-100	63-98
	6-43	Clay, clay loam, channery silty clay	CL, MH, CH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Channery loam, loam,	CL-ML, ML, CL	A-4	0	0	100	100	77-99
29A:									
Hatboro---------	0-8	Loam, silt loam, sandy loam, fine sandy loam, sandy clay loam	CL-ML, CL, SC-SM, SM, ML, SC	A-4, A-2-4	0	0	95-100	85-100	45-10
	8-41	Sandy clay loam, clay loam, loam, silt loam, silty clay loam	SC, CL, SC-SM, CL-ML	A-4, A-2-4, A-2-6, A-6	0	0	95-100	85-100	70-10
	41-60	Very gravelly loamy sand, stratified clay to very gravelly sand	SP-SM, CL-ML, SC, GM, GC, ML, SM, CL, SP-SC, SC-SM, GC-GM, GP-GC	A-1, A-2, A-3, A-4, A-5, A-6, A-7	0	0	35-100	10-100	5-10
30F:									
Hickoryknob-----	0-4	Loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0-13	86-100	86-100	70-94
	4-23	Channery clay loam, channery loam, clay loam	CL	A-4, A-6	0	0-37	74-100	73-100	60-99
	23-36	Bedrock			---	---	---	---	---
	36-80	Bedrock			---	---	---	---	---
Rhodhiss--------	0-5	Loam, fine sandy loam	ML, SM, SC-SM, CL-ML	A-4	0	0-13	77-100	77-100	61-94
	5-38	Channery loam, loam, clay loam	CL	A-4, A-6	0	0-13	78-100	77-100	63-99
	38-80	Loamy sand, channery loam, sandy loam	SM, SC-SM	A-2-4, A-4, A-2	0	0-13	77-100	77-100	53-84

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number—: 4	10	40
	In				Pct	Pct			
31C:									
Meadowfield-----	0-8	Very gravelly loam, extremely gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly sandy loam	SM, GP-GM, GC-GM, GM, GP, SP-SM, SC-SM, SP	A-1, A-2-4, A-3, A-4	0-82	22-82	40-85	10-65	6-60
	8-22	Very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam, extremely gravelly fine sandy loam, very gravelly sandy loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	15-82	40-85	10-55	6-55
	22-28	Very gravelly loam, very gravelly fine sandy loam, extremely gravelly sandy loam, very gravelly sandy clay loam, gravelly loam, gravelly clay loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	7-82	40-90	10-80	7-80
	28-80	Bedrock			---	---	---	---	---
Stott Knob------	0-4	Loam, fine sandy loam	ML, SM, SC-SM, CL-ML	A-4	0	0-4	79-100	78-100	64-94
	4-19	Channery loam, loam, clay loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Gravelly loam, channery fine sandy loam, sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0-4	66-100	64-100	52-94
	31-38	Sandy loam, channery fine sandy loam, flaggy loam	ML, SC-SM, SM, GC-GM, GM, GW-GM, CL-ML	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
31D:									
Meadowfield-----	0-8	Very gravelly loam, extremely gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly sandy loam	SM, GP-GM, GC-GM, GM, GP, SP-SM, SC-SM, SP	A-1, A-2-4, A-3, A-4	0-82	22-82	40-85	10-65	6-60
	8-22	Very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam, extremely gravelly fine sandy loam, very gravelly sandy loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	15-82	40-85	10-55	6-55
	22-28	Very gravelly loam, very gravelly fine sandy loam, extremely gravelly sandy loam, very gravelly sandy clay loam, gravelly loam, gravelly clay loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	7-82	40-90	10-80	7-80
	28-80	Bedrock			---	---	---	---	---
Stott Knob------	0-4	Fine sandy loam, loam	ML, SC-SM, SM, CL-ML	A-4	0	0-4	79-100	78-100	64-94
	4-19	Channery loam, loam, clay loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Sandy loam, channery fine sandy loam, gravelly loam	CL-ML, ML, SM, SC-SM	A-4	0	0-4	66-100	64-100	52-94
	31-38	Flaggy loam, channery fine sandy loam, sandy loam	CL-ML, ML, SC-SM, SM, GC-GM, GM, GW-GM	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
32E:									
Meadowfield-----	0-8	Very gravelly loam, extremely gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly sandy loam	SM, GP-GM, GC-GM, GM, GP, SP-SM, SC-SM, SP	A-1, A-2-4, A-3, A-4	0-82	22-82	40-85	10-65	6-60
	8-22	Very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam, extremely gravelly fine sandy loam, very gravelly sandy loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	15-82	40-85	10-55	6-55
	22-28	Very gravelly loam, very gravelly fine sandy loam, extremely gravelly sandy loam, very gravelly sandy clay loam, gravelly loam, gravelly clay loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	7-82	40-90	10-80	7-80
	28-80	Bedrock			---	---	---	---	---
Stott Knob------	0-4	Loam, fine sandy loam	SC-SM, CL-ML, ML, SM	A-4	0	0-4	79-100	78-100	64-94
	4-19	Loam, channery loam, clay loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Gravelly loam, channery fine sandy loam, sandy loam	SC-SM, ML, CL-ML, SM	A-4	0	0-4	66-100	64-100	52-94
	31-38	Sandy loam, channery fine sandy loam, flaggy loam	GM, GC-GM, SM, SC-SM, ML, CL-ML, GW-GM	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
32F:									
Meadowfield-----	0-8	Very gravelly loam, extremely gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly sandy loam	SM, GP-GM, GC-GM, GM, GP, SP-SM, SC-SM, SP	A-1, A-2-4, A-3, A-4	0-82	22-82	40-85	10-65	6-60
	8-22	Very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam, extremely gravelly fine sandy loam, very gravelly sandy loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	15-82	40-85	10-55	6-55
	22-28	Very gravelly loam, very gravelly fine sandy loam, extremely gravelly sandy loam, very gravelly sandy clay loam, gravelly loam, gravelly clay loam	SC, GC-GM, GP, SC-SM, SP, SP-SC, GC, GP-GC	A-2-4, A-1, A-2-6, A-4, A-6	0-82	7-82	40-90	10-80	7-80
	28-80	Bedrock			---	---	---	---	---
Stott Knob------	0-4	Fine sandy loam, loam	SM, SC-SM, ML, CL-ML	A-4	0	0-4	79-100	78-100	64-94
	4-19	Clay loam, loam, channery loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Gravelly loam, channery fine sandy loam, sandy loam	CL-ML, SM, ML, SC-SM	A-4	0	0-4	66-100	64-100	52-94
	31-38	Flaggy loam, channery fine sandy loam, sandy loam	CL-ML, SM, SC-SM, GW-GM, GM, GC-GM, ML	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---
33B:									
Minnieville-----	0-4	Clay loam, loam	CL, CL-ML, ML	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Gravelly clay loam, clay loam, clay	CH, CL	A-6, A-7-6, A-7	0	0	100	100	77-10
33C:									
Minnieville-----	0-4	Clay loam, loam	ML, CL-ML, CL	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Gravelly clay loam, clay loam, clay	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
33D:									
Minnieville-----	0-4	Loam, clay loam	ML, CL-ML, CL	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Gravelly clay loam, clay loam, clay	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10
33E:									
Minnieville-----	0-4	Clay loam, loam	ML, CL-ML, CL	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Clay, clay loam, gravelly clay loam	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10
34B:									
Minnieville-----	0-4	Clay loam, loam	ML, CL-ML, CL	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Clay loam, gravelly clay loam, clay	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10
Redbrush--------	0-5	Silt loam, loam	CL, CL-ML, ML	A-4, A-6	0	0-10	81-100	80-100	62-98
	5-12	Loam, gravelly loam, silt loam	CL-ML, CL, ML	A-6, A-4	0	0-18	80-100	80-100	62-98
	12-23	Clay loam, clay, gravelly clay loam	CH, CL	A-7-6, A-7	0	0-10	72-100	71-100	56-10
	23-30	Silt loam, gravelly fine sandy loam, clay	CL, CH	A-7-6, A-7	0	0-10	73-100	71-100	62-10
	30-38	Bedrock			---	---	---	---	---
	38-80	Bedrock			---	---	---	---	---
34C:									
Minnieville-----	0-4	Loam, clay loam	CL, CL-ML, ML	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Clay loam, gravelly clay loam, clay	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10
Redbrush--------	0-5	Silt loam, loam	ML, CL-ML, CL	A-4, A-6	0	0-10	81-100	80-100	62-98
	5-12	Loam, gravelly loam, silt loam	ML, CL-ML, CL	A-6, A-4	0	0-18	80-100	80-100	62-98
	12-23	Clay, gravelly clay loam, clay loam	CL, CH	A-7-6, A-7	0	0-10	72-100	71-100	56-10
	23-30	Gravelly fine sandy loam, silt loam, clay	CH, CL	A-7-6, A-7	0	0-10	73-100	71-100	62-10
	30-38	Bedrock			---	---	---	---	---
	38-80	Bedrock			---	---	---	---	---
34D:									
Minnieville-----	0-4	Clay loam, loam	CL, CL-ML, ML	A-6, A-4	0	0-9	81-100	81-100	59-10
	4-53	Clay, clay loam, gravelly clay loam	CL, CH	A-6, A-7-6, A-7	0	0	100	100	77-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
34D:									
Redbrush--------	0-5	Loam, silt loam	ML, CL, CL-ML	A-4, A-6	0	0-10	81-100	80-100	62-98
	5-12	Gravelly loam, loam, silt loam	ML, CL-ML, CL	A-6, A-4	0	0-18	80-100	80-100	62-98
	12-23	Clay, clay loam, gravelly clay loam	CL, CH	A-7-6, A-7	0	0-10	72-100	71-100	56-10
	23-30	Silt loam, gravelly fine sandy loam, clay	CH, CL	A-7-6, A-7	0	0-10	73-100	71-100	62-10
	30-38	Bedrock			---	---	---	---	---
	38-80	Bedrock			---	---	---	---	---
35A:									
Nikwasi---------	0-10	Loam, fine sandy loam, sandy loam	ML, SC-SM, SM	A-4, A-2-4	0	0-30	90-100	50-100	30-95
	10-28	Loam, fine sandy loam, sandy loam	ML, SC-SM, SM	A-4, A-2-4	0	0-30	90-100	50-100	30-95
	28-60	Very gravelly loamy fine sand, loamy fine sand, very cobbly sand, cobbly loamy coarse sand, very cobbly coarse sand, gravelly loamy sand	SP-SM, SM	A-1, A-2	0	7-50	90-100	50-70	25-60
Dellwood--------	0-8	Cobbly sandy loam, gravelly fine sandy loam	SM, SC-SM	A-4, A-2-4, A-2	0	17-32	71-90	70-90	51-74
	8-18	Very gravelly fine sandy loam, cobbly sandy loam, very cobbly sandy loam, gravelly sandy loam	SM, SC-SM	A-1, A-4, A-2-4, A-2	0	16-48	50-91	48-91	35-75
	18-60	Gravelly sand, very cobbly loamy sand, cobbly sand	SW-SM, SM	A-1, A-2-4	0-8	8-30	36-83	33-83	25-69
36D:									
Peaks-----------	0-5	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0-18	58-82	56-82	45-76
	5-34	Very cobbly sandy loam, very gravelly fine sandy loam, very cobbly loam	GC-GM, SM, SC-SM	A-4, A-2-4, A-1, A-2	0	26-46	42-63	40-61	32-57
	34-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
36D:									
Edneyville------	0-6	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	ML, SM, SC-SM, CL-ML	A-2-4, A-4	0	0-17	59-83	57-82	45-77
	6-29	Gravelly sandy loam, loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-4	0	0-9	67-100	66-100	54-92
	29-61	Loam, gravelly loamy sand, fine sandy loam	SM, SC-SM	A-2-4, A-4	0	0-9	67-100	66-100	56-10
36E:									
Peaks-----------	0-5	Gravelly fine sandy loam, cobbly sandy loam, gravelly loam	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0-18	58-82	56-82	45-76
	5-34	Very cobbly sandy loam, very gravelly fine sandy loam, very cobbly loam	GC-GM, SC-SM, SM	A-4, A-2-4, A-1, A-2	0	26-46	42-63	40-61	32-57
	34-80	Bedrock			---	---	---	---	---
Edneyville------	0-6	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	CL-ML, SM, ML, SC-SM	A-2-4, A-4	0	0-17	59-83	57-82	45-77
	6-29	Fine sandy loam, loam, gravelly sandy loam	ML, CL-ML, SC-SM, SM	A-4	0	0-9	67-100	66-100	54-92
	29-61	Loam, gravelly loamy sand, fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-9	67-100	66-100	56-10
37F:									
Peaks-----------	0-5	Gravelly loam, cobbly sandy loam, gravelly fine sandy loam	ML, CL-ML, SM, SC-SM	A-2-4, A-4	0	0-18	58-82	56-82	45-76
	5-34	Very gravelly fine sandy loam, very cobbly sandy loam, very cobbly loam	SM, SC-SM, GC-GM	A-4, A-2-4, A-1, A-2	0	26-46	42-63	40-61	32-57
	34-80	Bedrock			---	---	---	---	---
Rock outcrop.									
38C:									
Penhook---------	0-6	Loam	CL, CL-ML, ML	A-4	0	0-9	81-100	81-100	63-98
	6-43	Clay, clay loam, channery silty clay	CL, MH, CH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Silt loam, loam, channery loam	CL, ML, CL-ML	A-4	0	0	100	100	77-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
38C:									
Goblintown------	0-6	Silt loam, fine sandy loam, loam	CL, ML, SC-SM, SC, CL-ML, SM	A-4	0	0-9	80-100	80-100	63-97
	6-20	Channery clay loam, clay, channery silty clay	CL	A-6, A-7-6	0-5	0-25	73-100	72-100	61-10
	20-37	Channery very fine sandy loam, very channery loam, silty clay loam	SC-SM, CL, CL-ML	A-4, A-6	0-11	0-26	77-100	76-100	66-10
	37-80	Bedrock			---	---	---	---	---
39C:									
Penhook---------	0-6	Loam	CL-ML, ML, CL	A-4	0	0-9	81-100	81-100	63-98
	6-43	Clay, clay loam, channery silty clay	CL, MH, CH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Silt loam, loam, channery loam	CL-ML, ML, CL	A-4	0	0	100	100	77-99
Strawfield------	0-2	Loam, silt loam, fine sandy loam, clay loam	CL-ML, SC-SM, CL, SC	A-7-6, A-6	0	0-8	83-100	83-100	61-10
	2-9	Loam, silty clay loam, clay loam, channery silt loam	CL	A-6, A-4, A-7-6	0	0-15	74-100	74-100	60-10
	9-22	Clay, silty clay, channery clay loam	CH, CL, MH	A-7	0	0-20	76-100	76-100	61-10
	22-80	Bedrock			---	---	---	---	---
39D:									
Penhook---------	0-6	Loam	CL-ML, ML, CL	A-4	0	0-9	81-100	81-100	63-98
	6-43	Clay loam, clay, channery silty clay	CL, MH, CH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Channery loam, loam, silt loam	CL-ML, ML, CL	A-4	0	0	100	100	77-99
Strawfield------	0-2	Silt loam, loam, fine sandy loam, clay loam	SC, CL, CL-ML, SC-SM	A-7-6, A-6	0	0-8	83-100	83-100	61-10
	2-9	Channery silt loam, clay loam, silty clay loam, loam	CL	A-6, A-4, A-7-6	0	0-15	74-100	74-100	60-10
	9-22	Clay, silty clay, channery clay loam	MH, CL, CH	A-7	0	0-20	76-100	76-100	61-10
	22-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
39E:									
Penhook---------	0-6	Loam	CL, ML, CL-ML	A-4	0	0-9	81-100	81-100	63-98
	6-43	Clay loam, clay, channery silty clay	CL, CH, MH	A-7	0	0-9	81-100	81-100	64-10
	43-63	Silt loam, loam, channery loam	CL-ML, CL, ML	A-4	0	0	100	100	77-99
Strawfield------	0-2	Loam, silt loam, fine sandy loam, clay loam	CL, SC-SM, SC, CL-ML	A-7-6, A-6	0	0-8	83-100	83-100	61-10
	2-9	Silty clay loam, loam, clay loam, channery silt loam	CL	A-6, A-4, A-7-6	0	0-15	74-100	74-100	60-10
	9-22	Channery clay loam, clay, silty clay	CH, CL, MH	A-7	0	0-20	76-100	76-100	61-10
	22-80	Bedrock			---	---	---	---	---
40E:									
Rhodhiss--------	0-5	Loam, fine sandy loam	CL-ML, ML, SM, SC-SM	A-4	0	0-13	77-100	77-100	61-94
	5-38	Channery loam, loam, clay loam	CL	A-4, A-6	0	0-13	78-100	77-100	63-99
	38-80	Loamy sand, sandy loam, channery loam	SM, SC-SM	A-2-4, A-4, A-2	0	0-13	77-100	77-100	53-84
Stott Knob------	0-4	Fine sandy loam, loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	4-19	Channery loam, loam, clay loam	CL	A-4, A-6	0	0-4	80-100	79-100	65-99
	19-31	Sandy loam, gravelly loam, channery fine sandy loam	CL-ML, ML, SM, SC-SM	A-4	0	0-4	66-100	64-100	52-94
	31-38	Flaggy loam, channery fine sandy loam, sandy loam	CL-ML, GC-GM, GM, SC-SM, SM, GW-GM, ML	A-1, A-2-4, A-4	0-22	0-54	22-100	21-100	17-94
	38-80	Bedrock			---	---	---	---	---
41B:									
Saunook---------	0-9	Loam	CL, ML, SC-SM, SM	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
41C:									
Saunook---------	0-9	Loam	CL, ML, SC-SM, SM	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
41D:									
Saunook---------	0-9	Loam	SC-SM, SM, ML, CL	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
42B:									
Saunook---------	0-9	Loam	CL, ML, SC-SM, SM	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
Thunder---------	0-7	Very cobbly loam	CL-ML, CL, SC, SC-SM	A-4	0-40	35-55	80-95	70-85	60-80
	7-24	Very cobbly loam, very cobbly sandy clay loam, extremely cobbly clay loam	CL, CL-ML, SC-SM, SC	A-2-4, A-4, A-6	0-40	35-55	80-90	70-85	55-85
	24-49	Very cobbly clay loam, extremely cobbly sandy clay loam, extremely stony sandy clay loam, extremely stony loam	CL-ML, GC, GC-GM, SC, CL, SC-SM	A-2-4, A-4, A-6	30-55	15-40	80-100	70-95	55-95
	49-60	Very cobbly coarse sandy loam, extremely cobbly clay loam, extremely cobbly loam, extremely stony sandy loam, extremely stony sandy clay loam	CL, CL-ML, SC, SC-SM	A-1, A-2-4, A-4, A-6	30-55	15-40	89-100	70-95	40-95

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
42C:									
Saunook---------	0-9	Loam	ML, SM, SC-SM, CL	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
Thunder---------	0-7	Very cobbly loam	SC-SM, SC, CL-ML, CL	A-4	0-40	35-55	80-95	70-85	60-80
	7-24	Very cobbly loam, very cobbly sandy clay loam, extremely cobbly clay loam	SC-SM, SC, CL-ML, CL	A-2-4, A-4, A-6	0-40	35-55	80-90	70-85	55-85
	24-49	Very cobbly clay loam, extremely cobbly sandy clay loam, extremely stony sandy clay loam, extremely stony loam	CL, CL-ML, SC-SM, GC-GM, GC, SC	A-2-4, A-4, A-6	30-55	15-40	80-100	70-95	55-95
	49-60	Very cobbly coarse sandy loam, extremely cobbly clay loam, extremely cobbly loam, extremely stony sandy loam, extremely stony sandy clay loam	CL, CL-ML, SC, SC-SM	A-1, A-2-4, A-4, A-6	30-55	15-40	89-100	70-95	40-95
42D:									
Saunook---------	0-9	Loam	CL, ML, SC-SM, SM	A-4	0	0-8	80-100	75-100	65-95
	9-33	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10
	33-60	Loam, sandy clay loam, clay loam	SM, SC-SM, SC, ML, CL	A-2-4, A-4, A-6, A-7-6	0	0-8	80-100	75-100	60-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
42D:									
Thunder---------	0-7	Very cobbly loam	CL, SC-SM, SC, CL-ML	A-4	0-40	35-55	80-95	70-85	60-80
	7-24	Very cobbly loam, very cobbly sandy clay loam, extremely cobbly clay loam	SC, CL-ML, CL, SC-SM	A-2-4, A-4, A-6	0-40	35-55	80-90	70-85	55-85
	24-49	Very cobbly clay loam, extremely cobbly sandy clay loam, extremely stony sandy clay loam, extremely stony loam	CL-ML, GC, CL, SC, SC-SM, GC-GM	A-2-4, A-4, A-6	30-55	15-40	80-100	70-95	55-95
	49-60	Very cobbly coarse sandy loam, extremely cobbly clay loam, extremely cobbly loam, extremely stony sandy loam, extremely stony sandy clay loam	CL, CL-ML, SC, SC-SM	A-1, A-2-4, A-4, A-6	30-55	15-40	89-100	70-95	40-95
43B:									
Thurmont--------	0-4	Loam, sandy loam, fine sandy loam	SC, CL, SC-SM, CL-ML	A-2-4, A-4	0	0-8	83-100	83-100	73-10
	4-50	Clay loam, gravelly sandy clay loam, loam	CL, SC	A-6	0	0-9	68-100	66-100	49-96
	50-62	Clay loam, sandy clay loam, gravelly sandy loam	SC, CL	A-2-4, A-6	0	0-8	69-100	68-100	50-96
	62-90	Sandy clay loam, gravelly loamy sand, clay	MH, CL, CL-ML, SC-SM, SC	A-2-4, A-6	0	0-8	69-100	68-100	49-10
43C:									
Thurmont--------	0-4	Loam, sandy loam, fine sandy loam	CL, SC, SC-SM, CL-ML	A-2-4, A-4	0	0-8	83-100	83-100	73-10
	4-50	Clay loam, gravelly sandy clay loam, loam	CL, SC	A-6	0	0-9	68-100	66-100	49-96
	50-62	Sandy clay loam, gravelly sandy loam, clay loam	SC, CL	A-2-4, A-6	0	0-8	69-100	68-100	50-96
	62-90	Sandy clay loam, gravelly loamy sand, clay	CL, SC-SM, SC, CL-ML, MH	A-2-4, A-6	0	0-8	69-100	68-100	49-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
43D:									
Thurmont--------	0-4	Loam, sandy loam, fine sandy loam	CL-ML, SC-SM, SC, CL	A-2-4, A-4	0	0-8	83-100	83-100	73-10
	4-50	Clay loam, gravelly sandy clay loam, loam	SC, CL	A-6	0	0-9	68-100	66-100	49-96
	50-62	Clay loam, sandy clay loam, gravelly sandy loam	CL, SC	A-2-4, A-6	0	0-8	69-100	68-100	50-96
	62-90	Gravelly loamy sand, sandy clay loam, clay	CL, CL-ML, MH, SC-SM, SC	A-2-4, A-6	0	0-8	69-100	68-100	49-10
44C:									
Thurmont--------	0-4	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	SC, CL, SC-SM, CL-ML	A-2-4, A-4	0	0-50	83-100	83-100	73-10
	4-50	Clay loam, gravelly sandy clay loam, loam	CL, SC	A-6	0	0-9	68-100	66-100	49-96
	50-62	Sandy clay loam, clay loam, gravelly sandy loam	SC, CL	A-2-4, A-6	0	0-8	69-100	68-100	50-96
	62-90	Clay, sandy clay loam, gravelly loamy sand	SC-SM, MH, CL-ML, CL, SC	A-2-4, A-6	0	0-8	69-100	68-100	49-10
44D:									
Thurmont--------	0-4	Cobbly fine sandy loam, cobbly sandy loam, cobbly loam	CL-ML, SC-SM, CL, SC	A-2-4, A-4	0	0-50	83-100	83-100	73-10
	4-50	Clay loam, gravelly sandy clay loam, loam	CL, SC	A-6	0	0-9	68-100	66-100	49-96
	50-62	Gravelly sandy loam, clay loam, sandy clay loam	CL, SC	A-2-4, A-6	0	0-8	69-100	68-100	50-96
	62-90	Gravelly loamy sand, clay, sandy clay loam	SC, CL, SC-SM, MH, CL-ML	A-2-4, A-6	0	0-8	69-100	68-100	49-10
45B:									
Trimont---------	0-10	Fine sandy loam, loam	SC-SM, SM, ML, CL-ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	SC, CL	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Fine sandy loam, channery sandy loam, loam	SC-SM, SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
45B:									
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, fine sandy loam, sandy clay loam	CL-ML, CL, SC, SC-SM	A-4	0	0-30	80-100	70-100	50-95
	32-54	Loam, channery sandy loam, fine sandy loam, very paragravelly fine sandy loam	CL-ML, ML, SC, CL, SC-SM, SM	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
45C:									
Trimont---------	0-10	Fine sandy loam, loam	CL-ML, SC-SM, SM, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Loam, fine sandy loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
Kibler----------	0-8	Loam, fine sandy loam, sandy loam	SC-SM, CL-ML	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, fine sandy loam, sandy clay loam	SC-SM, CL-ML, CL, SC	A-4	0	0-30	80-100	70-100	50-95
	32-54	Very paragravelly fine sandy loam, fine sandy loam, channery sandy loam, loam	CL-ML, SM, CL, SC-SM, ML, SC	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
45D:									
Trimont---------	0-10	Loam, fine sandy loam	CL-ML, SM, ML, SC-SM	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Channery sandy loam, loam, fine sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
45D:									
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Channery fine sandy loam, sandy clay loam, fine sandy loam, loam	SC-SM, CL-ML, CL, SC	A-4	0	0-30	80-100	70-100	50-95
	32-54	Very paragravelly fine sandy loam, loam, channery sandy loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
45E:									
Trimont---------	0-10	Fine sandy loam, loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Channery sandy clay loam, loam, clay loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Loam, fine sandy loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
Kibler----------	0-8	Loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, CL-ML, CL	A-4	0	0-30	80-100	70-100	50-95
	32-54	Channery sandy loam, very paragravelly fine sandy loam, fine sandy loam, loam	SC, SM, CL-ML, SC-SM, CL, ML	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
46B:									
Trimont---------	0-10	Fine sandy loam, loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Channery sandy loam, loam, fine sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
46B:									
Kibler----------	0-8	Loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, sandy clay loam, fine sandy loam	SC, CL, CL-ML, SC-SM	A-4	0	0-30	80-100	70-100	50-95
	32-54	Channery sandy loam, very paragravelly fine sandy loam, loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
46C:									
Trimont---------	0-10	Loam, fine sandy loam	SC-SM, CL-ML, ML, SM	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, loam, channery sandy clay loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Fine sandy loam, loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
Kibler----------	0-8	Sandy loam, loam, fine sandy loam	SC-SM, CL-ML	A-4	0	0-20	85-100	80-100	50-95
	8-32	Loam, channery fine sandy loam, fine sandy loam, sandy clay loam	SC-SM, CL-ML, SC, CL	A-4	0	0-30	80-100	70-100	50-95
	32-54	Fine sandy loam, very paragravelly fine sandy loam, channery sandy loam, loam	SC, ML, CL-ML, CL, SC-SM, SM	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
46D:									
Trimont---------	0-10	Loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-4	0	0-4	79-100	78-100	64-94
	10-33	Loam, clay loam, channery sandy clay loam	SC, CL	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Channery sandy loam, loam, fine sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
46D:									
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	0-20	85-100	80-100	50-95
	8-32	Fine sandy loam, sandy clay loam, channery fine sandy loam, loam	SC-SM, CL-ML, CL, SC	A-4	0	0-30	80-100	70-100	50-95
	32-54	Loam, channery sandy loam, fine sandy loam, very paragravelly fine sandy loam	ML, SC, SC-SM, SM, CL, CL-ML	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
46E:									
Trimont---------	0-10	Fine sandy loam, loam	SC-SM, ML, SM, CL-ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, channery sandy clay loam, loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-100
	33-80	Fine sandy loam, loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
Kibler----------	0-8	Fine sandy loam, sandy loam, loam	SC-SM, CL-ML	A-4	0	0-20	85-100	80-100	50-95
	8-32	Fine sandy loam, sandy clay loam, loam, channery fine sandy loam	SC, CL, CL-ML, SC-SM	A-4	0	0-30	80-100	70-100	50-95
	32-54	Loam, channery sandy loam, fine sandy loam, very paragravelly fine sandy loam	CL, ML, SC-SM, SM, CL-ML, SC	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---
47C:									
Tuckasegee------	0-17	Cobbly fine sandy loam, gravelly sandy loam, cobbly loam	SC-SM, CL-ML, SM, ML	A-4	0	18-33	69-90	68-89	54-84
	17-60	Loam, gravelly sandy loam, cobbly sandy clay loam, cobbly loam	CL, SC	A-6	0	0-31	72-100	70-100	59-100

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number—: 4	10	40
	In				Pct	Pct			
47C:									
Cullasaja-------	0-7	Mucky channery loam, cobbly fine sandy loam, gravelly sandy loam	SC, CL, ML, SC-SM, SM, CL-ML	A-1, A-4, A-2-4	0	0-15	69-83	58-78	35-74
	7-23	Cobbly sandy loam, channery loam, very channery fine sandy loam, very channery loam, channery fine sandy loam	CL-ML, SM, ML, SC-SM	A-1, A-2-4, A-4	0-8	0-15	52-86	36-81	22-77
	23-60	Cobbly sandy loam, channery fine sandy loam, very channery fine sandy loam, channery loam	SC-SM, SM, ML, CL-ML	A-1, A-2-4, A-4	0-8	0-25	52-86	36-81	22-77
47D:									
Tuckasegee------	0-17	Cobbly fine sandy loam, gravelly sandy loam, cobbly loam	SC-SM, SM, CL-ML, ML	A-4	0	18-33	69-90	68-89	54-84
	17-60	Gravelly sandy loam, cobbly loam, loam, cobbly sandy clay loam	CL, SC	A-6	0	0-31	72-100	70-100	59-10
Cullasaja-------	0-7	Gravelly sandy loam, mucky channery loam, cobbly fine sandy loam	CL, ML, SC-SM, SM, CL-ML, SC	A-1, A-4, A-2-4	0	0-15	69-83	58-78	35-74
	7-23	Very channery loam, channery fine sandy loam, very channery fine sandy loam, cobbly sandy loam, channery loam	ML, CL-ML, SC-SM, SM	A-1, A-2-4, A-4	0-8	0-15	52-86	36-81	22-77
	23-60	Very channery fine sandy loam, cobbly sandy loam, channery fine sandy loam, channery loam	SC-SM, ML, SM, CL-ML	A-1, A-2-4, A-4	0-8	0-25	52-86	36-81	22-77
47E:									
Tuckasegee------	0-17	Cobbly fine sandy loam, cobbly loam, gravelly sandy loam	SM, CL-ML, SC-SM, ML	A-4	0	18-33	69-90	68-89	54-84
	17-60	Gravelly sandy loam, cobbly sandy clay loam, cobbly loam, loam	SC, CL	A-6	0	0-31	72-100	70-100	59-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
47E:									
Cullasaja-------	0-7	Cobbly fine sandy loam, gravelly sandy loam, mucky channery loam	ML, SC-SM, CL-ML, SC, SM, CL	A-1, A-4, A-2-4	0	0-15	69-83	58-78	35-74
	7-23	Channery loam, cobbly sandy loam, very channery loam, channery fine sandy loam, very channery fine sandy loam	SC-SM, SM, CL-ML, ML	A-1, A-2-4, A-4	0-8	0-15	52-86	36-81	22-77
	23-60	Cobbly sandy loam, very channery fine sandy loam, channery loam, channery fine sandy loam	SC-SM, SM, ML, CL-ML	A-1, A-2-4, A-4	0-8	0-25	52-86	36-81	22-77
48.									
Udorthents									
49F:									
Widgett---------	0-9	Extremely channery loam, very cobbly fine sandy loam, gravelly sandy loam	CL-ML, CL, SC, GC, SC-SM, GC-GM	A-1, A-4, A-2-4	0-8	8-40	40-90	20-80	10-75
	9-24	Very channery clay loam, extremely channery sandy clay loam, very channery loam	GC-GM, GC, SC-SM, SC, CL-ML, CL	A-1, A-2-4, A-6, A-4	0-8	25-55	55-85	45-75	35-75
	24-35	Very channery clay loam, extremely channery sandy clay loam, extremely channery loam	GC-GM, GC, SC-SM, SC, CL, CL-ML	A-1, A-2-4, A-6, A-4, A-2-6	3-20	25-60	60-85	50-75	40-75
	35-80	Bedrock			---	---	---	---	---
Kibler----------	0-8	Sandy loam, loam, fine sandy loam	SC-SM, CL-ML	A-4	0	0-20	85-100	80-100	50-95
	8-32	Sandy clay loam, fine sandy loam, channery fine sandy loam, loam	CL-ML, SC-SM, CL, SC	A-4	0	0-30	80-100	70-100	50-95
	32-54	Very paragravelly fine sandy loam, loam, channery sandy loam, fine sandy loam	SC, SM, SC-SM, CL, ML, CL-ML	A-4	0	0-20	70-100	60-100	35-95
	54-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
50D:									
Widgett---------	0-9	Extremely channery loam, very cobbly fine sandy loam, gravelly sandy loam	CL-ML, CL, GC-GM, SC-SM, SC, GC	A-1, A-4, A-2-4	0-8	8-40	40-90	20-80	10-75
	9-24	Very channery loam, extremely channery sandy clay loam, very channery clay loam	GC, SC-SM, GC-GM, CL, CL-ML, SC	A-1, A-2-4, A-6, A-4	0-8	25-55	55-85	45-75	35-75
	24-35	Very channery clay loam, extremely channery sandy clay loam, extremely channery loam	CL, CL-ML, SC, SC-SM, GC, GC-GM	A-1, A-2-4, A-6, A-4, A-2-6	3-20	25-60	60-85	50-75	40-75
	35-80	Bedrock			---	---	---	---	---
Trimont---------	0-10	Loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Loam, channery sandy clay loam, clay loam	SC, CL	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Channery sandy loam, fine sandy loam, loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
50E:									
Widgett---------	0-9	Very cobbly fine sandy loam, gravelly sandy loam, extremely channery loam	GC-GM, CL-ML, CL, SC, GC, SC-SM	A-1, A-4, A-2-4	0-8	8-40	40-90	20-80	10-75
	9-24	Very channery loam, extremely channery sandy clay loam, very channery clay loam	GC, GC-GM, SC-SM, SC, CL, CL-ML	A-1, A-2-4, A-6, A-4	0-8	25-55	55-85	45-75	35-75
	24-35	Very channery clay loam, extremely channery sandy clay loam, extremely channery loam	CL, GC-GM, GC, SC-SM, SC, CL-ML	A-1, A-2-4, A-6, A-4, A-2-6	3-20	25-60	60-85	50-75	40-75
	35-80	Bedrock			---	---	---	---	---
Trimont---------	0-10	Loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Channery sandy clay loam, loam, clay loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Fine sandy loam, loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
50F:									
Widgett---------	0-9	Extremely channery loam, very cobbly fine sandy loam, gravelly sandy loam	GC-GM, GC, SC, SC-SM, CL, CL-ML	A-1, A-4, A-2-4	0-8	8-40	40-90	20-80	10-75
	9-24	Extremely channery sandy clay loam, very channery loam, very channery clay loam	GC-GM, GC, SC-SM, SC, CL-ML, CL	A-1, A-2-4, A-6, A-4	0-8	25-55	55-85	45-75	35-75
	24-35	Very channery clay loam, extremely channery sandy clay loam, extremely channery loam	SC-SM, CL, CL-ML, SC, GC, GC-GM	A-1, A-2-4, A-6, A-4, A-2-6	3-20	25-60	60-85	50-75	40-75
	35-80	Bedrock			---	---	---	---	---
Trimont---------	0-10	Loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0-4	79-100	78-100	64-94
	10-33	Clay loam, loam, channery sandy clay loam	CL, SC	A-6, A-2-4	0	0-13	57-100	55-100	46-10
	33-80	Loam, fine sandy loam, channery sandy loam	SM, SC-SM	A-4, A-2-4, A-1	0	0-12	59-100	58-100	50-99
51B:									
Woolwine--------	0-2	Gravelly loam, loam, fine sandy loam	SC-SM, SC, CL-ML, CL, ML, SM	A-4	0	0-8	76-100	75-100	59-98
	2-28	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	68-100	66-100	52-10
	28-42	Bedrock			---	---	---	---	---
	42-80	Bedrock			---	---	---	---	---
Fairview--------	0-9	Fine sandy loam, sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0-9	83-100	82-100	72-98
	9-23	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Clay loam, gravelly fine sandy loam, sandy clay loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, sandy loam, fine sandy loam	ML, CL-ML, SC, SM, SC-SM, CL	A-2-4, A-4	0	0-9	74-100	73-100	62-10

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage pass sieve number-: 4	10	40
	In				Pct	Pct			
51C:									
Woolwine--------	0-2	Fine sandy loam, loam, gravelly loam	SC, SC-SM, SM, CL-ML, CL, ML	A-4	0	0-8	76-100	75-100	59-98
	2-28	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	68-100	66-100	52-10
	28-42	Bedrock			---	---	---	---	---
	42-80	Bedrock			---	---	---	---	---
Fairview--------	0-9	Loam, sandy loam, fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-9	83-100	82-100	72-98
	9-23	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Clay loam, gravelly fine sandy loam, sandy clay loam	CL, CL-ML, ML, SC, SC-SM, SM	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, fine sandy loam, sandy loam	CL, ML, SC-SM, SM, SC, CL-ML	A-2-4, A-4	0	0-9	74-100	73-100	62-10
51D:									
Woolwine--------	0-2	Fine sandy loam, loam, gravelly loam	ML, SC-SM, SM, SC, CL-ML, CL	A-4	0	0-8	76-100	75-100	59-98
	2-28	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	68-100	66-100	52-10
	28-42	Bedrock			---	---	---	---	---
	42-80	Bedrock			---	---	---	---	---
Fairview--------	0-9	Loam, fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-9	83-100	82-100	72-98
	9-23	Clay, clay loam, gravelly clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Gravelly fine sandy loam, sandy clay loam, clay loam	ML, SC-SM, CL-ML, CL, SM, SC	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, fine sandy loam, sandy loam	SM, CL, ML, CL-ML, SC, SC-SM	A-2-4, A-4	0	0-9	74-100	73-100	62-10
51E:									
Woolwine--------	0-2	Gravelly loam, loam, fine sandy loam	ML, CL, CL-ML, SC, SM, SC-SM	A-4	0	0-8	76-100	75-100	59-98
	2-28	Gravelly clay loam, clay loam, clay	CL	A-6, A-7-6	0	0-9	68-100	66-100	52-10
	28-42	Bedrock			---	---	---	---	---
	42-80	Bedrock			---	---	---	---	---

Table 15.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
51E:									
Fairview--------	0-9	Fine sandy loam, loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-9	83-100	82-100	72-98
	9-23	Gravelly clay loam, clay, clay loam	CL	A-6, A-7-6	0	0-9	75-100	74-100	58-10
	23-29	Gravelly fine sandy loam, sandy clay loam, clay loam	SM, SC, SC-SM, CL-ML, CL, ML	A-4, A-6	0	0-9	74-100	73-100	53-10
	29-80	Gravelly loam, fine sandy loam, sandy loam	SM, SC-SM, SC, CL-ML, ML, CL	A-2-4, A-4	0	0-9	74-100	73-100	62-10
W.									
Water									

Table 16.—Physical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wi
apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
1D:										
Bellspur-------------	0-8	24-52	28-50	7-27	1.35-1.50	4.00-42.00	0.11-0.16	0.0-2.9	3.0-8.0	.17
	8-14	20-80	0-50	7-40	1.45-1.55	4.00-14.00	0.06-0.14	0.0-2.9	0.0-0.5	.17
	14-32	24-82	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	32-35	24-90	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	35-41	---	---	---	---	0.01-0.42	---	---	---	---
	41-80	---	---	---	---	0.00-0.01	---	---	---	---
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
1E:										
Bellspur-------------	0-8	24-52	28-50	7-27	1.35-1.50	4.00-42.00	0.11-0.16	0.0-2.9	3.0-8.0	.17
	8-14	20-80	0-50	7-40	1.45-1.55	4.00-14.00	0.06-0.14	0.0-2.9	0.0-0.5	.17
	14-32	24-82	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	32-35	24-90	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	35-41	---	---	---	---	0.01-0.42	---	---	---	---
	41-80	---	---	---	---	0.00-0.01	---	---	---	---
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
2C:										
Bellspur-------------	0-8	24-52	28-50	7-27	1.35-1.50	4.00-42.00	0.11-0.16	0.0-2.9	3.0-8.0	.17
	8-14	20-80	0-50	7-40	1.45-1.55	4.00-14.00	0.06-0.14	0.0-2.9	0.0-0.5	.17
	14-32	24-82	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	32-35	24-90	0-50	7-27	1.45-1.55	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.17
	35-41	---	---	---	---	0.01-0.42	---	---	---	---
	41-80	---	---	---	---	0.00-0.01	---	---	---	---
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
3C:										
Bluemount------------	0-4	15-82	0-80	10-27	1.30-1.40	4.00-14.00	0.18-0.24	0.0-2.9	0.5-2.0	.24
	4-14	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	14-24	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	24-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
3D:										
Bluemount------------	0-4	15-82	0-80	10-27	1.30-1.40	4.00-14.00	0.18-0.24	0.0-2.9	0.5-2.0	.24
	4-14	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	14-24	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	24-80	---	---	---	---	0.01-0.07	---	---	---	---
3E:										
Bluemount------------	0-4	15-82	0-80	10-27	1.30-1.40	4.00-14.00	0.18-0.24	0.0-2.9	0.5-2.0	.24
	4-14	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	14-24	15-52	20-80	18-35	1.30-1.40	4.00-14.00	0.12-0.20	3.0-5.9	0.0-0.5	.37
	24-80	---	---	---	---	0.01-0.07	---	---	---	---
4B:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	4.00-42.00	0.13-0.18	0.0-2.9	1.0-3.0	.24
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.08-0.17	3.0-5.9	0.0-0.5	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
4C:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	4.00-42.00	0.13-0.18	0.0-2.9	1.0-3.0	.24
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.08-0.17	3.0-5.9	0.0-0.5	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
4D:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	4.00-42.00	0.13-0.18	0.0-2.9	1.0-3.0	.24
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.08-0.17	3.0-5.9	0.0-0.5	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
5B:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-8.0	.20
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.10-0.17	3.0-5.9	0.2-1.0	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
5C:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-8.0	.20
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.10-0.17	3.0-5.9	0.2-1.0	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
5D:										
Braddock-------------	0-9	24-85	0-50	10-25	1.20-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-8.0	.20
	9-56	0-65	0-45	35-65	1.20-1.50	4.00-14.00	0.10-0.17	3.0-5.9	0.2-1.0	.24
	56-60	0-85	0-50	15-50	1.20-1.50	4.00-42.00	0.03-0.18	0.0-2.9	0.0-0.5	.24
6F:										
Bugley---------------	0-3	0-52	28-80	7-27	1.25-1.55	14.00-42.00	0.08-0.18	0.0-2.9	0.5-2.0	.20
	3-13	0-50	50-80	10-27	1.35-1.65	14.00-42.00	0.07-0.13	0.0-2.9	0.0-0.2	.28
	13-18	---	---	---	---	0.00-0.42	---	---	---	---
	18-80	---	---	---	---	0.00-0.42	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
6F:										
Littlejoe-----------	0-8	24-85	0-50	12-27	1.10-1.40	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.32
	8-45	0-45	0-60	27-60	1.40-1.60	1.40-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28
	45-59	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	59-80	---	---	---	---	0.01-0.07	---	---	---	---
7C:										
Cliffield-----------	0-3	24-85	0-50	7-20	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	1.0-5.0	.10
	3-6	24-85	0-50	10-27	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	0.5-1.0	.15
	6-23	20-80	0-50	18-35	1.20-1.30	4.00-14.00	0.07-0.09	0.0-2.9	0.0-0.5	.10
	23-80	---	---	---	---	0.01-0.07	---	---	---	---
Evard---------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
7D:										
Cliffield-----------	0-3	24-85	0-50	7-20	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	1.0-5.0	.10
	3-6	24-85	0-50	10-27	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	0.5-1.0	.15
	6-23	20-80	0-50	18-35	1.20-1.30	4.00-14.00	0.07-0.09	0.0-2.9	0.0-0.5	.10
	23-80	---	---	---	---	0.01-0.07	---	---	---	---
Evard---------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
7E:										
Cliffield-----------	0-3	24-85	0-50	7-20	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	1.0-5.0	.10
	3-6	24-85	0-50	10-27	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	0.5-1.0	.15
	6-23	20-80	0-50	18-35	1.20-1.30	4.00-14.00	0.07-0.09	0.0-2.9	0.0-0.5	.10
	23-80	---	---	---	---	0.01-0.07	---	---	---	---
Evard---------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
7F:										
Cliffield-----------	0-3	24-85	0-50	7-20	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	1.0-5.0	.10
	3-6	24-85	0-50	10-27	1.20-1.30	14.00-42.00	0.06-0.12	0.0-2.9	0.5-1.0	.15
	6-23	20-80	0-50	18-35	1.20-1.30	4.00-14.00	0.07-0.09	0.0-2.9	0.0-0.5	.10
	23-80	---	---	---	---	0.01-0.07	---	---	---	---
Evard---------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
8B2:										
Clifford-------------	0-7	24-85	0-50	10-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.28
	7-54	0-45	0-45	27-55	1.20-1.35	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.24
	54-62	20-80	0-50	10-40	1.20-1.35	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.24
	62-82	20-85	0-50	10-40	1.20-1.35	4.00-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.17
8C2:										
Clifford-------------	0-7	24-85	0-50	10-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	1.0-3.0	.28
	7-54	0-45	0-45	27-55	1.20-1.35	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.24
	54-62	20-80	0-50	10-40	1.20-1.35	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.24
	62-82	20-85	0-50	10-40	1.20-1.35	4.00-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.17
9A:										
Colvard--------------	0-12	32-85	0-50	8-18	1.45-1.65	14.00-42.00	0.07-0.12	0.0-2.9	1.0-2.0	.24
	12-43	32-100	0-50	4-18	1.45-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.24
	43-62	32-100	0-50	4-18	1.45-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.24
Suches---------------	0-12	24-82	0-50	10-25	1.30-1.60	4.00-14.00	0.12-0.19	0.0-2.9	1.0-8.0	.32
	12-54	15-82	0-80	18-38	1.35-1.60	4.00-14.00	0.14-0.20	0.0-2.9	0.5-2.0	.28
	54-60	15-91	0-80	3-35	1.40-1.70	4.00-42.00	0.05-0.19	0.0-2.9	0.1-1.0	.28
10A:										
Comus----------------	0-12	32-85	0-50	5-18	1.20-1.40	4.23-14.11	0.13-0.21	0.0-2.9	1.0-3.0	.28
	12-47	32-85	0-50	5-18	1.20-1.40	4.23-14.11	0.13-0.21	0.0-2.9	1.0-2.0	.43
	47-62	32-91	0-50	5-27	1.30-1.60	4.23-42.34	0.07-0.21	0.0-2.9	0.0-0.5	.28
Elsinboro------------	0-11	24-82	0-50	8-18	1.30-1.40	4.00-14.00	0.10-0.18	0.0-2.9	1.0-3.0	.28
	11-38	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28
	38-60	24-82	0-50	8-27	1.40-1.60	4.00-42.00	0.06-0.14	0.0-2.9	0.0-0.5	.17
11B:										
Dillard--------------	0-10	24-82	0-50	10-25	1.20-1.60	4.00-14.00	0.12-0.18	0.0-2.9	1.0-8.0	.24
	10-30	20-80	0-50	18-35	1.35-1.60	4.00-14.00	0.15-0.18	0.0-2.9	0.2-1.0	.28
	30-48	0-80	0-50	25-55	1.30-1.60	1.40-4.00	0.08-0.16	3.0-5.9	0.1-1.0	.28
	48-62	0-100	0-50	5-45	1.30-1.70	1.40-141.00	0.02-0.20	0.0-2.9	0.1-1.0	.28
12C:										
Dillard--------------	0-10	24-82	0-50	10-25	1.20-1.60	4.00-14.00	0.12-0.18	0.0-2.9	1.0-8.0	.24
	10-30	20-80	0-50	18-35	1.35-1.60	4.00-14.00	0.15-0.18	0.0-2.9	0.2-1.0	.28
	30-48	0-80	0-50	25-55	1.30-1.60	1.40-4.00	0.08-0.16	3.0-5.9	0.1-1.0	.28
	48-62	0-100	0-50	5-45	1.30-1.70	1.40-141.00	0.02-0.20	0.0-2.9	0.1-1.0	.28

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
13B:										
Dillard----------------	0-10	24-82	0-50	10-25	1.20-1.60	4.00-14.00	0.12-0.18	0.0-2.9	1.0-8.0	.24
	10-30	20-80	0-50	18-35	1.35-1.60	4.00-14.00	0.15-0.18	0.0-2.9	0.2-1.0	.28
	30-48	0-80	0-50	25-55	1.30-1.60	1.40-4.00	0.08-0.16	3.0-5.9	0.1-1.0	.28
	48-62	0-100	0-50	5-45	1.30-1.70	1.40-141.00	0.02-0.20	0.0-2.9	0.1-1.0	.28
Tugglesgap--------------	0-7	24-85	0-50	10-27	1.45-1.55	14.00-141.00	0.07-0.15	0.0-2.9	1.0-3.0	.10
	7-21	20-80	0-50	10-40	1.45-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.0-0.5	.05
	21-35	20-80	0-50	10-40	1.45-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.0-0.5	.05
	35-50	24-85	0-50	10-27	1.45-1.60	4.00-14.00	0.04-0.09	0.0-2.9	0.0-0.5	.05
	50-64	0-85	0-80	10-35	1.45-1.55	14.00-141.00	0.07-0.17	0.0-2.9	0.0-0.5	.37
14C:										
Dillard----------------	0-10	24-82	0-50	10-25	1.20-1.60	4.00-14.00	0.12-0.18	0.0-2.9	1.0-8.0	.24
	10-30	20-80	0-50	18-35	1.35-1.60	4.00-14.00	0.15-0.18	0.0-2.9	0.2-1.0	.28
	30-48	0-80	0-50	25-55	1.30-1.60	1.40-4.00	0.08-0.16	3.0-5.9	0.1-1.0	.28
	48-62	0-100	0-50	5-45	1.30-1.70	1.40-141.00	0.02-0.20	0.0-2.9	0.1-1.0	.28
Tugglesgap--------------	0-7	24-85	0-50	10-27	1.45-1.55	14.00-141.00	0.07-0.15	0.0-2.9	1.0-3.0	.10
	7-21	20-80	0-50	10-40	1.45-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.0-0.5	.05
	21-35	20-80	0-50	10-40	1.45-1.55	4.00-14.00	0.06-0.15	0.0-2.9	0.0-0.5	.05
	35-50	24-85	0-50	10-27	1.45-1.60	4.00-14.00	0.04-0.09	0.0-2.9	0.0-0.5	.05
	50-64	0-85	0-80	10-35	1.45-1.55	14.00-141.00	0.07-0.17	0.0-2.9	0.0-0.5	.37
15B:										
Dillsboro---------------	0-10	24-52	28-50	7-27	1.35-1.50	4.00-42.00	0.11-0.16	0.0-2.9	2.0-8.0	.20
	10-45	0-45	0-45	27-60	1.35-1.50	4.00-14.00	0.07-0.16	0.0-2.9	0.0-0.5	.20
	45-60	20-80	0-50	7-40	1.30-1.50	4.00-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32
16C:										
Dillsboro---------------	0-10	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	3.0-8.0	.32
	10-45	0-45	0-45	27-60	1.35-1.50	4.00-14.00	0.07-0.16	0.0-2.9	0.0-0.5	.20
	45-60	20-80	0-50	7-40	1.30-1.50	4.00-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32
17B:										
Evard-------------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee-------------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
17C:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
17D:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
17E:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
18B:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
18C:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
18D:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
18E:										
Evard----------------	0-4	24-82	0-50	5-25	1.30-1.60	14.00-42.00	0.08-0.14	0.0-2.9	1.0-5.0	.15
	4-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.24
	33-72	52-91	0-30	5-20	1.20-1.40	4.00-14.00	0.05-0.17	0.0-2.9	0.0-0.5	.24
Cowee----------------	0-3	24-82	0-50	8-20	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.15
	3-18	20-80	0-50	18-35	1.55-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	18-30	24-82	0-50	5-35	1.45-1.65	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	30-43	---	---	---	---	0.07-0.42	---	---	---	---
	43-80	---	---	---	---	0.01-0.07	---	---	---	---
19B2:										
Fairview-------------	0-9	20-80	0-50	12-34	1.20-1.60	4.00-14.00	0.16-0.17	0.0-2.9	1.0-8.0	.24
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
19C2:										
Fairview-------------	0-9	20-80	0-50	12-34	1.20-1.60	4.00-14.00	0.16-0.17	0.0-2.9	1.0-8.0	.24
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
19D2:										
Fairview-------------	0-9	20-80	0-50	12-34	1.20-1.60	4.00-14.00	0.16-0.17	0.0-2.9	1.0-8.0	.24
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
20B:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
20C:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
20D:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
21E:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---
22E:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
23C:										
Fairystone----------	0-5	0-85	0-80	10-35	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	5-9	0-52	15-80	15-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-17	0-45	0-60	30-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	17-24	0-45	0-45	27-50	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	24-31	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	31-80	---	---	---	---	0.01-0.07	---	---	---	---
Littlejoe-----------	0-8	24-85	0-50	12-27	1.10-1.40	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.32
	8-45	0-45	0-60	27-60	1.40-1.60	1.40-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28
	45-59	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	59-80	---	---	---	---	0.01-0.07	---	---	---	---
24D:										
Fairystone----------	0-5	0-85	0-80	10-35	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	5-9	0-52	15-80	15-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-17	0-45	0-60	30-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	17-24	0-45	0-45	27-50	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	24-31	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	31-80	---	---	---	---	0.01-0.07	---	---	---	---
Littlejoe-----------	0-8	24-85	0-50	12-27	1.10-1.40	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.32
	8-45	0-45	0-60	27-60	1.40-1.60	1.40-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28
	45-59	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	59-80	---	---	---	---	0.01-0.07	---	---	---	---
25E:										
Fairystone----------	0-5	0-85	0-80	10-35	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	5-9	0-52	15-80	15-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-17	0-45	0-60	30-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	17-24	0-45	0-45	27-50	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	24-31	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	31-80	---	---	---	---	0.01-0.07	---	---	---	---
Littlejoe-----------	0-8	24-85	0-50	12-27	1.10-1.40	4.00-14.00	0.16-0.20	0.0-2.9	0.5-2.0	.32
	8-45	0-45	0-60	27-60	1.40-1.60	1.40-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28
	45-59	---	---	---	---	0.07-0.42	---	---	0.0-0.0	---
	59-80	---	---	---	---	0.01-0.07	---	---	---	---
26A:										
French--------------	0-10	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	1.0-2.0	.32
	10-24	20-85	0-50	5-40	1.30-1.50	4.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.24
	24-36	24-82	0-50	0-20	1.40-1.55	4.00-141.00	0.08-0.16	0.0-2.9	0.0-0.5	.10
	36-60	15-100	0-80	2-40	1.40-1.70	42.00-141.00	0.01-0.08	0.0-2.9	0.0-0.5	.05

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
27A:										
French---------------	0-10	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	1.0-2.0	.32
	10-24	20-85	0-50	5-40	1.30-1.50	4.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.24
	24-36	24-82	0-50	0-20	1.40-1.55	4.00-141.00	0.08-0.16	0.0-2.9	0.0-0.5	.10
	36-60	15-100	0-80	2-40	1.40-1.70	42.00-141.00	0.01-0.08	0.0-2.9	0.0-0.5	.05
Dellwood-------------	0-8	44-85	0-49	5-15	1.30-1.50	14.00-42.00	0.08-0.12	0.0-2.9	3.0-8.0	.10
	8-18	44-85	0-49	5-15	1.40-1.60	14.00-42.00	0.02-0.05	0.0-2.9	0.5-2.0	.05
	18-60	70-100	0-29	3-10	1.40-1.60	42.00-141.00	0.02-0.05	0.0-2.9	0.0-1.0	.05
28D:										
Goblintown-----------	0-6	0-85	0-80	10-27	1.20-1.40	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.28
	6-20	0-45	0-60	35-55	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	20-37	0-85	0-65	15-40	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	37-80	---	---	---	---	0.07-0.42	---	---	---	---
Penhook--------------	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
28E:										
Goblintown-----------	0-6	0-85	0-80	10-27	1.20-1.40	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.28
	6-20	0-45	0-60	35-55	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	20-37	0-85	0-65	15-40	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	37-80	---	---	---	---	0.07-0.42	---	---	---	---
Penhook--------------	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
29A:										
Hatboro--------------	0-8	15-82	0-80	10-25	1.20-1.50	4.00-14.00	0.13-0.22	0.0-2.9	2.0-8.0	.32
	8-41	15-80	0-80	18-35	1.30-1.55	4.00-14.00	0.15-0.21	0.0-2.9	1.0-3.0	.32
	41-60	0-100	0-39	5-45	1.30-1.70	14.00-141.00	0.02-0.14	0.0-2.9	0.1-1.0	.20
30F:										
Hickoryknob----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.24
	4-23	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	23-36	---	---	---	---	0.07-0.42	---	---	---	---
	36-80	---	---	---	---	0.01-0.07	---	---	---	---
Rhodhiss-------------	0-5	24-82	0-50	5-20	1.30-1.50	14.00-42.00	0.08-0.12	0.0-2.9	0.5-2.0	.20
	5-38	20-52	20-50	18-35	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20
	38-80	24-91	0-50	5-20	1.30-1.50	14.00-42.00	0.06-0.12	0.0-2.9	0.0-0.5	.20

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
31C:										
Meadowfield----------	0-8	24-85	0-50	7-20	1.30-1.60	14.00-42.00	0.05-0.14	0.0-2.9	1.0-8.0	.10
	8-22	20-85	0-50	18-35	1.30-1.60	4.00-14.00	0.04-0.12	0.0-2.9	0.2-1.0	.15
	22-28	20-85	0-50	15-35	1.20-1.60	4.00-42.00	0.04-0.13	0.0-2.9	0.1-1.0	.10
	28-80	---	---	---	---	0.00-0.01	0.00-0.01	---	---	---
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---
31D:										
Meadowfield----------	0-8	24-85	0-50	7-20	1.30-1.60	14.00-42.00	0.05-0.14	0.0-2.9	1.0-8.0	.10
	8-22	20-85	0-50	18-35	1.30-1.60	4.00-14.00	0.04-0.12	0.0-2.9	0.2-1.0	.15
	22-28	20-85	0-50	15-35	1.20-1.60	4.00-42.00	0.04-0.13	0.0-2.9	0.1-1.0	.10
	28-80	---	---	---	---	0.00-0.01	0.00-0.01	---	---	---
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---
32E:										
Meadowfield----------	0-8	24-85	0-50	7-20	1.30-1.60	14.00-42.00	0.05-0.14	0.0-2.9	1.0-8.0	.10
	8-22	20-85	0-50	18-35	1.30-1.60	4.00-14.00	0.04-0.12	0.0-2.9	0.2-1.0	.15
	22-28	20-85	0-50	15-35	1.20-1.60	4.00-42.00	0.04-0.13	0.0-2.9	0.1-1.0	.10
	28-80	---	---	---	---	0.00-0.01	0.00-0.01	---	---	---
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---
32F:										
Meadowfield----------	0-8	24-85	0-50	7-20	1.30-1.60	14.00-42.00	0.05-0.14	0.0-2.9	1.0-8.0	.10
	8-22	20-85	0-50	18-35	1.30-1.60	4.00-14.00	0.04-0.12	0.0-2.9	0.2-1.0	.15
	22-28	20-85	0-50	15-35	1.20-1.60	4.00-42.00	0.04-0.13	0.0-2.9	0.1-1.0	.10
	28-80	---	---	---	---	0.00-0.01	0.00-0.01	---	---	---
Stott Knob-----------	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
33B:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
33C:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
33D:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
33E:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
34B:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
Redbrush-------------	0-5	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.08-0.16	0.0-2.9	0.5-2.0	.32
	5-12	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.10-0.16	6.0-8.9	0.5-1.0	.24
	12-23	0-45	0-45	35-60	1.25-1.50	0.01-4.00	0.10-0.16	6.0-8.9	0.0-0.5	.24
	23-30	0-85	0-80	15-50	1.25-1.65	0.01-4.00	0.08-0.15	6.0-8.9	0.0-0.5	.32
	30-38	---	---	---	---	0.07-0.42	---	---	---	---
	38-80	---	---	---	---	0.01-0.07	---	---	---	---
34C:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
Redbrush-------------	0-5	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.08-0.16	0.0-2.9	0.5-2.0	.32
	5-12	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.10-0.16	6.0-8.9	0.5-1.0	.24
	12-23	0-45	0-45	35-60	1.25-1.50	0.01-4.00	0.10-0.16	6.0-8.9	0.0-0.5	.24
	23-30	0-85	0-80	15-50	1.25-1.65	0.01-4.00	0.08-0.15	6.0-8.9	0.0-0.5	.32
	30-38	---	---	---	---	0.07-0.42	---	---	---	---
	38-80	---	---	---	---	0.01-0.07	---	---	---	---
34D:										
Minnieville----------	0-4	20-52	15-50	7-40	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.5-2.0	.32
	4-53	0-45	0-45	35-70	1.25-1.35	4.00-14.00	0.10-0.14	3.0-5.9	0.0-0.5	.24
Redbrush-------------	0-5	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.08-0.16	0.0-2.9	0.5-2.0	.32
	5-12	0-52	28-80	7-27	1.25-1.65	4.00-14.00	0.10-0.16	6.0-8.9	0.5-1.0	.24
	12-23	0-45	0-45	35-60	1.25-1.50	0.01-4.00	0.10-0.16	6.0-8.9	0.0-0.5	.24
	23-30	0-85	0-80	15-50	1.25-1.65	0.01-4.00	0.08-0.15	6.0-8.9	0.0-0.5	.32
	30-38	---	---	---	---	0.07-0.42	---	---	---	---
	38-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
35A:										
Nikwasi	0-10	32-85	0-50	5-18	1.30-1.50	14.00-42.00	0.13-0.20	0.0-2.9	5.0-12	.24
	10-28	32-85	0-50	5-18	1.30-1.50	14.00-42.00	0.13-0.20	0.0-2.9	5.0-12	.24
	28-60	70-100	0-29	1-5	1.40-1.60	42.00-141.00	0.02-0.05	0.0-2.9	0.0-1.0	.05
Dellwood	0-8	44-85	0-49	5-15	1.30-1.50	14.00-42.00	0.08-0.12	0.0-2.9	3.0-8.0	.10
	8-18	44-85	0-49	5-15	1.40-1.60	14.00-42.00	0.02-0.05	0.0-2.9	0.5-2.0	.05
	18-60	70-100	0-29	3-10	1.40-1.60	42.00-141.00	0.02-0.05	0.0-2.9	0.0-1.0	.05
36D:										
Peaks	0-5	24-85	0-50	4-16	1.20-1.40	42.00-141.00	0.08-0.12	0.0-2.9	1.0-4.0	.15
	5-34	24-85	0-50	5-18	1.20-1.40	42.00-141.00	0.06-0.10	0.0-2.9	0.0-0.5	.10
	34-80	---	---	---	---	0.01-0.07	---	---	---	---
Edneyville	0-6	32-85	0-50	5-20	1.35-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-6.0	.15
	6-29	32-85	0-50	7-18	1.40-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.17
	29-61	32-91	0-50	5-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.5-2.0	.20
36E:										
Peaks	0-5	24-85	0-50	4-16	1.20-1.40	42.00-141.00	0.08-0.12	0.0-2.9	1.0-4.0	.15
	5-34	24-85	0-50	5-18	1.20-1.40	42.00-141.00	0.06-0.10	0.0-2.9	0.0-0.5	.10
	34-80	---	---	---	---	0.01-0.07	---	---	---	---
Edneyville	0-6	32-85	0-50	5-20	1.35-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-6.0	.15
	6-29	32-85	0-50	7-18	1.40-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.17
	29-61	32-91	0-50	5-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.5-2.0	.20
37F:										
Peaks	0-5	24-85	0-50	4-16	1.20-1.40	42.00-141.00	0.08-0.12	0.0-2.9	1.0-4.0	.15
	5-34	24-85	0-50	5-18	1.20-1.40	42.00-141.00	0.06-0.10	0.0-2.9	0.0-0.5	.10
	34-80	---	---	---	---	0.01-0.07	---	---	---	---
Rock outcrop.										
38C:										
Penhook	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
Goblintown	0-6	0-85	0-80	10-27	1.20-1.40	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.28
	6-20	0-45	0-60	35-55	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	20-37	0-85	0-65	15-40	1.20-1.40	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	37-80	---	---	---	---	0.07-0.42	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
39C:										
Penhook	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
Strawfield	0-2	0-85	0-80	10-40	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	2-9	0-52	15-80	20-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-22	0-45	0-60	35-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	22-80	---	---	---	---	0.01-0.07	---	---	---	---
39D:										
Penhook	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
Strawfield	0-2	0-85	0-80	10-40	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	2-9	0-52	15-80	20-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-22	0-45	0-60	35-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	22-80	---	---	---	---	0.01-0.07	---	---	---	---
39E:										
Penhook	0-6	24-52	28-50	7-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-2.0	.32
	6-43	0-45	0-60	35-60	1.20-1.40	4.00-14.00	0.13-0.18	3.0-5.9	0.0-0.5	.32
	43-63	0-52	28-80	5-27	1.20-1.40	4.00-14.00	0.05-0.10	0.0-2.9	0.0-0.5	.32
Strawfield	0-2	0-85	0-80	10-40	1.40-1.60	4.00-14.00	0.14-0.20	0.0-2.9	1.0-3.0	.20
	2-9	0-52	15-80	20-40	1.40-1.60	4.00-14.00	0.14-0.19	3.0-5.9	0.5-1.0	.24
	9-22	0-45	0-60	35-60	1.30-1.50	4.00-14.00	0.14-0.19	3.0-5.9	0.0-0.5	.24
	22-80	---	---	---	---	0.01-0.07	---	---	---	---
40E:										
Rhodhiss	0-5	24-82	0-50	5-20	1.30-1.50	14.00-42.00	0.08-0.12	0.0-2.9	0.5-2.0	.20
	5-38	20-52	20-50	18-35	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20
	38-80	24-91	0-50	5-20	1.30-1.50	14.00-42.00	0.06-0.12	0.0-2.9	0.0-0.5	.20
Stott Knob	0-4	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-5.0	.20
	4-19	20-52	20-50	18-35	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24
	19-31	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	31-38	24-82	0-50	8-20	1.25-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.20
	38-80	---	---	---	---	0.07-0.42	---	---	---	---
41B:										
Saunook	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
41C:										
Saunook-------------	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
41D:										
Saunook-------------	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
42B:										
Saunook-------------	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
Thunder-------------	0-7	24-52	28-50	7-27	1.45-1.55	14.00-42.00	0.03-0.12	0.0-2.9	2.0-8.0	.10
	7-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	24-49	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	49-60	20-85	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
42C:										
Saunook-------------	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
Thunder-------------	0-7	24-52	28-50	7-27	1.45-1.55	14.00-42.00	0.03-0.12	0.0-2.9	2.0-8.0	.10
	7-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	24-49	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	49-60	20-85	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
42D:										
Saunook-------------	0-9	24-52	28-50	7-27	1.35-1.45	4.00-42.00	0.14-0.19	0.0-2.9	2.0-8.0	.32
	9-33	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
	33-60	20-80	0-50	7-40	1.30-1.45	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.24
Thunder-------------	0-7	24-52	28-50	7-27	1.45-1.55	14.00-42.00	0.03-0.12	0.0-2.9	2.0-8.0	.10
	7-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	24-49	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
	49-60	20-85	0-50	7-40	1.45-1.55	14.00-42.00	0.02-0.12	0.0-2.9	0.0-0.5	.10
43B:										
Thurmont------------	0-4	24-82	0-50	10-25	1.35-1.60	14.00-42.00	0.17-0.19	0.0-2.9	1.0-3.0	.28
	4-50	20-80	0-50	18-40	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	50-62	20-82	0-30	18-40	1.35-1.60	4.00-42.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	62-90	0-91	0-39	10-60	1.35-1.60	1.40-42.00	0.12-0.15	0.0-2.9	0.0-0.5	.17

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
43C:										
Thurmont-------------	0-4	24-82	0-50	10-25	1.35-1.60	14.00-42.00	0.17-0.19	0.0-2.9	1.0-3.0	.28
	4-50	20-80	0-50	18-40	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	50-62	20-82	0-30	18-40	1.35-1.60	4.00-42.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	62-90	0-91	0-39	10-60	1.35-1.60	1.40-42.00	0.12-0.15	0.0-2.9	0.0-0.5	.17
43D:										
Thurmont-------------	0-4	24-82	0-50	10-25	1.35-1.60	14.00-42.00	0.17-0.19	0.0-2.9	1.0-3.0	.28
	4-50	20-80	0-50	18-40	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	50-62	20-82	0-30	18-40	1.35-1.60	4.00-42.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	62-90	0-91	0-39	10-60	1.35-1.60	1.40-42.00	0.12-0.15	0.0-2.9	0.0-0.5	.17
44C:										
Thurmont-------------	0-4	24-82	0-50	10-25	1.35-1.60	14.00-42.00	0.17-0.19	0.0-2.9	1.0-3.0	.28
	4-50	20-80	0-50	18-40	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	50-62	20-82	0-30	18-40	1.35-1.60	4.00-42.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	62-90	0-91	0-39	10-60	1.35-1.60	1.40-42.00	0.12-0.15	0.0-2.9	0.0-0.5	.17
44D:										
Thurmont-------------	0-4	24-82	0-50	10-25	1.35-1.60	14.00-42.00	0.17-0.19	0.0-2.9	1.0-3.0	.28
	4-50	20-80	0-50	18-40	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	50-62	20-82	0-30	18-40	1.35-1.60	4.00-42.00	0.17-0.19	0.0-2.9	0.0-0.5	.28
	62-90	0-91	0-39	10-60	1.35-1.60	1.40-42.00	0.12-0.15	0.0-2.9	0.0-0.5	.17
45B:										
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
45C:										
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
45D:										
Trimont---------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler----------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
45E:										
Trimont---------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler----------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
46B:										
Trimont---------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler----------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
46C:										
Trimont---------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler----------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
46D:										
Trimont---------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
46D:										
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
46E:										
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
47C:										
Tuckasegee-----------	0-17	24-82	0-50	5-20	1.20-1.40	14.00-42.00	0.11-0.18	0.0-2.9	3.0-8.0	.10
	17-60	24-82	0-50	18-35	1.30-1.60	4.00-42.00	0.11-0.21	0.0-2.9	0.5-2.0	.20
Cullasaja------------	0-7	24-85	0-50	5-25	0.50-1.20	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	7-23	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	23-60	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
47D:										
Tuckasegee-----------	0-17	24-82	0-50	5-20	1.20-1.40	14.00-42.00	0.11-0.18	0.0-2.9	3.0-8.0	.10
	17-60	24-82	0-50	18-35	1.30-1.60	4.00-42.00	0.11-0.21	0.0-2.9	0.5-2.0	.20
Cullasaja------------	0-7	24-85	0-50	5-25	0.50-1.20	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	7-23	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	23-60	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
47E:										
Tuckasegee-----------	0-17	24-82	0-50	5-20	1.20-1.40	14.00-42.00	0.11-0.18	0.0-2.9	3.0-8.0	.10
	17-60	24-82	0-50	18-35	1.30-1.60	4.00-42.00	0.11-0.21	0.0-2.9	0.5-2.0	.20
Cullasaja------------	0-7	24-85	0-50	5-25	0.50-1.20	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	7-23	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	23-60	24-85	0-50	5-18	1.00-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
48.										
Udorthents										

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
49F:										
Widgett--------------	0-9	24-85	0-50	7-27	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	9-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	24-35	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	35-80	---	---	---	---	0.00-0.01	---	---	---	---
Kibler---------------	0-8	24-82	0-50	10-27	1.15-1.45	14.00-42.00	0.12-0.16	0.0-2.9	3.0-8.0	.20
	8-32	24-82	0-50	10-35	1.20-1.50	4.00-14.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	32-54	24-82	0-50	5-27	1.20-1.50	14.00-42.00	0.10-0.17	0.0-2.9	0.0-1.0	.24
	54-80	---	---	---	---	0.01-0.07	---	---	---	---
50D:										
Widgett--------------	0-9	24-85	0-50	7-27	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	9-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	24-35	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	35-80	---	---	---	---	0.00-0.01	---	---	---	---
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
50E:										
Widgett--------------	0-9	24-85	0-50	7-27	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	9-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	24-35	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	35-80	---	---	---	---	0.00-0.01	---	---	---	---
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
50F:										
Widgett--------------	0-9	24-85	0-50	7-27	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	5.0-15	.10
	9-24	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	24-35	20-80	0-50	7-40	1.45-1.55	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.05
	35-80	---	---	---	---	0.00-0.01	---	---	---	---
Trimont--------------	0-10	24-82	0-50	8-20	1.35-1.60	4.00-14.00	0.10-0.15	0.0-2.9	3.0-9.0	.20
	10-33	20-80	0-50	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-80	24-82	0-50	8-20	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.15
51B:										
Woolwine-------------	0-2	24-85	0-50	7-27	1.40-1.65	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.28
	2-28	0-45	0-45	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	28-42	---	---	---	---	0.07-0.42	---	---	---	---
	42-80	---	---	---	---	0.01-0.07	---	---	---	---

Table 16.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct	
51B:										
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
51C:										
Woolwine-------------	0-2	24-85	0-50	7-27	1.40-1.65	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.28
	2-28	0-45	0-45	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	28-42	---	---	---	---	0.07-0.42	---	---	---	---
	42-80	---	---	---	---	0.01-0.07	---	---	---	---
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
51D:										
Woolwine-------------	0-2	24-85	0-50	7-27	1.40-1.65	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.28
	2-28	0-45	0-45	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	28-42	---	---	---	---	0.07-0.42	---	---	---	---
	42-80	---	---	---	---	0.01-0.07	---	---	---	---
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
51E:										
Woolwine-------------	0-2	24-85	0-50	7-27	1.40-1.65	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.28
	2-28	0-45	0-45	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	28-42	---	---	---	---	0.07-0.42	---	---	---	---
	42-80	---	---	---	---	0.01-0.07	---	---	---	---
Fairview-------------	0-9	24-85	0-50	10-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28
	9-23	0-45	0-45	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28
	23-29	20-85	0-49	10-40	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
	29-80	24-85	0-50	10-27	1.20-1.50	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.28
W.										
Water										

Table 17.—Chemical Soil Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
1D:				
Bellspur	0-8	4.0-11	3.0-8.4	4.5-6.0
	8-14	1.8-11	1.3-8.3	4.5-6.0
	14-32	1.8-7.9	1.3-5.9	4.5-6.0
	32-35	1.8-7.9	1.3-5.9	4.5-6.0
	35-41	---	---	---
	41-80	---	---	---
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
1E:				
Bellspur	0-8	4.0-11	3.0-8.4	4.5-6.0
	8-14	1.8-11	1.3-8.3	4.5-6.0
	14-32	1.8-7.9	1.3-5.9	4.5-6.0
	32-35	1.8-7.9	1.3-5.9	4.5-6.0
	35-41	---	---	---
	41-80	---	---	---
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
2C:				
Bellspur	0-8	4.0-11	3.0-8.4	4.5-6.0
	8-14	1.8-11	1.3-8.3	4.5-6.0
	14-32	1.8-7.9	1.3-5.9	4.5-6.0
	32-35	1.8-7.9	1.3-5.9	4.5-6.0
	35-41	---	---	---
	41-80	---	---	---
Trimont	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
3C:				
Bluemount	0-4	4.6-14	3.5-10	5.1-6.5
	4-14	6.3-13	4.7-10	5.1-6.5
	14-24	6.3-13	4.7-10	5.1-6.5
	24-80	---	---	---
3D:				
Bluemount	0-4	4.6-14	3.5-10	5.1-6.5
	4-14	6.3-13	4.7-10	5.1-6.5
	14-24	6.3-13	4.7-10	5.1-6.5
	24-80	---	---	---
3E:				
Bluemount	0-4	4.6-14	3.5-10	5.1-6.5
	4-14	6.3-13	4.7-10	5.1-6.5
	14-24	6.3-13	4.7-10	5.1-6.5
	24-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
4B:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
4C:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
4D:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
5B:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
5C:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
5D:				
Braddock	0-9	4.8-9.0	3.6-6.8	3.5-5.5
	9-56	8.8-15	6.6-11	3.5-5.5
	56-60	4.5-12	3.4-9.3	3.5-5.5
6F:				
Bugley	0-3	3.6-14	2.7-10	3.6-5.5
	3-13	3.5-13	2.6-9.5	3.6-5.5
	13-18	---	---	---
	18-80	---	---	---
Littlejoe	0-8	4.1-11	3.1-8.5	4.5-5.5
	8-45	8.8-16	6.6-12	4.5-5.5
	45-59	---	---	---
	59-80	---	---	---
7C:				
Cliffield	0-3	4.0-16	3.0-12	3.5-5.5
	3-6	3.6-9.0	2.7-6.8	3.5-5.5
	6-23	4.5-9.9	3.4-7.4	3.5-5.5
	23-80	---	---	---
Evard	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
7D:				
Cliffield	0-3	4.0-16	3.0-12	3.5-5.5
	3-6	3.6-9.0	2.7-6.8	3.5-5.5
	6-23	4.5-9.9	3.4-7.4	3.5-5.5
	23-80	---	---	---
Evard	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
7E:				
Cliffield------------	0-3	4.0-16	3.0-12	3.5-5.5
	3-6	3.6-9.0	2.7-6.8	3.5-5.5
	6-23	4.5-9.9	3.4-7.4	3.5-5.5
	23-80	---	---	---
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
7F:				
Cliffield------------	0-3	4.0-16	3.0-12	3.5-5.5
	3-6	3.6-9.0	2.7-6.8	3.5-5.5
	6-23	4.5-9.9	3.4-7.4	3.5-5.5
	23-80	---	---	---
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
8B2:				
Clifford-------------	0-7	3.3-8.8	2.5-6.6	4.5-6.0
	7-54	3.5-6.6	2.6-5.0	4.5-6.0
	54-62	1.0-5.1	0.8-3.8	4.5-6.0
	62-82	1.0-5.1	0.8-3.8	4.5-6.0
8C2:				
Clifford-------------	0-7	3.3-8.8	2.5-6.6	4.5-6.0
	7-54	3.5-6.6	2.6-5.0	4.5-6.0
	54-62	1.0-5.1	0.8-3.8	4.5-6.0
	62-82	1.0-5.1	0.8-3.8	4.5-6.0
9A:				
Colvard--------------	0-12	5.0-11	3.8-8.1	5.1-7.8
	12-43	2.5-8.6	1.9-6.4	5.1-7.8
	43-62	2.5-8.6	1.9-6.4	5.1-7.8
Suches---------------	0-12	7.0-15	5.2-11	4.5-6.0
	12-54	5.6-14	4.2-10	4.5-6.0
	54-60	1.9-11	1.4-8.2	4.5-6.0
10A:				
Comus----------------	0-12	3.5-11	2.6-8.5	4.5-6.0
	12-47	3.5-9.0	2.6-6.8	4.5-6.0
	47-62	1.3-7.9	1.0-5.9	4.5-6.0
Elsinboro------------	0-11	4.3-11	3.2-8.5	4.5-5.5
	11-38	4.5-9.9	3.4-7.4	4.5-5.5
	38-60	2.0-7.9	1.5-5.9	4.5-5.5
11B:				
Dillard--------------	0-10	3.6-16	2.7-12	5.1-6.0
	10-30	5.6-11	4.2-8.2	4.5-6.0
	30-48	5.0-14	3.8-10	4.5-6.0
	48-62	1.2-12	0.9-9.3	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
12C:				
Dillard	0-10	3.6-16	2.7-12	5.1-6.0
	10-30	5.6-11	4.2-8.2	4.5-6.0
	30-48	5.0-14	3.8-10	4.5-6.0
	48-62	1.2-12	0.9-9.3	4.5-6.0
13B:				
Dillard	0-10	3.6-16	2.7-12	5.1-6.0
	10-30	5.6-11	4.2-8.2	4.5-6.0
	30-48	5.0-14	3.8-10	4.5-6.0
	48-62	1.2-12	0.9-9.3	4.5-6.0
Tugglesgap	0-7	4.8-14	3.6-10	4.5-6.0
	7-21	2.5-11	1.9-8.3	4.5-6.0
	21-35	2.5-11	1.9-8.3	4.5-6.0
	35-50	2.5-7.9	1.9-5.9	4.5-6.0
	50-64	2.5-9.9	1.9-7.4	4.5-6.0
14C:				
Dillard	0-10	3.6-16	2.7-12	5.1-6.0
	10-30	5.6-11	4.2-8.2	4.5-6.0
	30-48	5.0-14	3.8-10	4.5-6.0
	48-62	1.2-12	0.9-9.3	4.5-6.0
Tugglesgap	0-7	4.8-14	3.6-10	4.5-6.0
	7-21	2.5-11	1.9-8.3	4.5-6.0
	21-35	2.5-11	1.9-8.3	4.5-6.0
	35-50	2.5-7.9	1.9-5.9	4.5-6.0
	50-64	2.5-9.9	1.9-7.4	4.5-6.0
15B:				
Dillsboro	0-10	8.5-25	6.4-19	3.6-6.0
	10-45	7.0-16	5.0-12	4.5-5.5
	45-60	2.0-11	1.5-8.0	4.5-5.5
16C:				
Dillsboro	0-10	8.5-25	6.4-19	4.5-5.5
	10-45	7.0-16	5.0-12	4.5-5.5
	45-60	2.0-11	1.5-8.0	4.5-5.5
17B:				
Evard	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
17C:				
Evard	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
17C:				
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
17D:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
17E:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
18B:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
18C:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
18D:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
18D:				
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
18E:				
Evard----------------	0-4	3.5-18	2.6-13	4.5-6.0
	4-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-72	1.3-6.1	1.0-4.6	4.5-6.0
Cowee----------------	0-3	4.3-16	3.2-12	3.5-6.0
	3-18	4.5-9.9	3.4-7.4	3.5-6.0
	18-30	1.3-9.9	1.0-7.4	3.5-6.0
	30-43	---	---	---
	43-80	---	---	---
19B2:				
Fairview-------------	0-9	1.9-5.8	1.4-4.3	3.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
19C2:				
Fairview-------------	0-9	1.9-5.8	1.4-4.3	3.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
19D2:				
Fairview-------------	0-9	1.9-5.8	1.4-4.3	3.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
20B:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
20C:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
20D:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
21E:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
21E:				
Stott Knob-----------	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
22E:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
Stott Knob-----------	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
23C:				
Fairystone-----------	0-5	4.8-17	3.6-13	3.5-5.5
	5-9	6.1-12	4.6-9.2	3.5-5.5
	9-17	8.8-16	6.6-12	3.5-5.5
	17-24	8.8-16	6.6-12	3.5-5.5
	24-31	---	---	---
	31-80	---	---	---
Littlejoe------------	0-8	4.1-11	3.1-8.5	4.5-5.5
	8-45	8.8-16	6.6-12	4.5-5.5
	45-59	---	---	---
	59-80	---	---	---
24D:				
Fairystone-----------	0-5	4.8-17	3.6-13	3.5-5.5
	5-9	6.1-12	4.6-9.2	3.5-5.5
	9-17	8.8-16	6.6-12	3.5-5.5
	17-24	8.8-16	6.6-12	3.5-5.5
	24-31	---	---	---
	31-80	---	---	---
Littlejoe------------	0-8	4.1-11	3.1-8.5	4.5-5.5
	8-45	8.8-16	6.6-12	4.5-5.5
	45-59	---	---	---
	59-80	---	---	---
25E:				
Fairystone-----------	0-5	4.8-17	3.6-13	3.5-5.5
	5-9	6.1-12	4.6-9.2	3.5-5.5
	9-17	8.8-16	6.6-12	3.5-5.5
	17-24	8.8-16	6.6-12	3.5-5.5
	24-31	---	---	---
	31-80	---	---	---
Littlejoe------------	0-8	4.1-11	3.1-8.5	4.5-5.5
	8-45	8.8-16	6.6-12	4.5-5.5
	45-59	---	---	---
	59-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
26A:				
French---------------	0-10	4.0-12	3.0-8.5	4.5-6.5
	10-24	1.5-11	1.0-8.0	4.5-6.5
	24-36	1.0-6.0	0.5-4.5	3.6-6.0
	36-60	0.5-11	0.4-8.3	4.5-6.5
27A:				
French---------------	0-10	4.0-12	3.0-8.5	4.5-6.5
	10-24	1.5-11	1.0-8.0	4.5-6.5
	24-36	1.0-6.0	0.5-4.5	3.6-6.0
	36-60	0.5-11	0.4-8.3	4.5-6.5
Dellwood-------------	0-8	8.0-22	6.0-16	4.5-6.0
	8-18	2.4-8.3	1.8-6.2	4.5-6.0
	18-60	0.8-4.8	0.6-3.6	4.5-6.0
28D:				
Goblintown-----------	0-6	3.3-9.5	2.5-7.1	4.5-6.0
	6-20	3.5-6.6	2.6-5.0	4.5-6.0
	20-37	1.5-5.1	1.1-3.8	4.5-6.0
	37-80	---	---	---
Penhook--------------	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
28E:				
Goblintown-----------	0-6	3.3-9.5	2.5-7.1	4.5-6.0
	6-20	3.5-6.6	2.6-5.0	4.5-6.0
	20-37	1.5-5.1	1.1-3.8	4.5-6.0
	37-80	---	---	---
Penhook--------------	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
29A:				
Hatboro--------------	0-8	7.0-14	5.2-10	4.5-7.3
	8-41	5.0-9.9	3.8-7.4	4.5-7.3
	41-60	1.2-12	0.9-9.3	5.6-6.5
30F:				
Hickoryknob----------	0-4	4.3-16	3.2-12	3.5-5.5
	4-23	4.5-9.9	3.4-7.4	3.5-5.5
	23-36	---	---	---
	36-80	---	---	---
Rhodhiss-------------	0-5	2.4-9.5	1.8-7.1	4.5-6.0
	5-38	4.5-9.9	3.4-7.4	4.5-6.0
	38-80	1.3-6.1	1.0-4.6	4.5-6.0
31C:				
Meadowfield----------	0-8	4.0-16	3.0-12	3.5-6.0
	8-22	6.8-20	5.1-15	3.5-6.0
	22-28	2.5-9.9	1.9-7.4	3.5-6.0
	28-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
31C:				
Stott Knob	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
31D:				
Meadowfield	0-8	4.0-16	3.0-12	3.5-6.0
	8-22	6.8-20	5.1-15	3.5-6.0
	22-28	2.5-9.9	1.9-7.4	3.5-6.0
	28-80	---	---	---
Stott Knob	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
32E:				
Meadowfield	0-8	4.0-16	3.0-12	3.5-6.0
	8-22	6.8-20	5.1-15	3.5-6.0
	22-28	2.5-9.9	1.9-7.4	3.5-6.0
	28-80	---	---	---
Stott Knob	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
32F:				
Meadowfield	0-8	4.0-16	3.0-12	3.5-6.0
	8-22	6.8-20	5.1-15	3.5-6.0
	22-28	2.5-9.9	1.9-7.4	3.5-6.0
	28-80	---	---	---
Stott Knob	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---
33B:				
Minnieville	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
33C:				
Minnieville	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
33D:				
Minnieville	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
33E:				
Minnieville	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
34B:				
Minnieville----------	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
Redbrush-------------	0-5	3.6-14	2.7-10	5.1-7.8
	5-12	3.6-12	2.7-8.8	5.1-7.8
	12-23	12-22	9.2-17	5.1-7.8
	23-30	5.3-19	4.0-14	5.1-7.8
	30-38	---	---	---
	38-80	---	---	---
34C:				
Minnieville----------	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
Redbrush-------------	0-5	3.6-14	2.7-10	5.1-7.8
	5-12	3.6-12	2.7-8.8	5.1-7.8
	12-23	12-22	9.2-17	5.1-7.8
	23-30	5.3-19	4.0-14	5.1-7.8
	30-38	---	---	---
	38-80	---	---	---
34D:				
Minnieville----------	0-4	1.8-8.5	1.4-6.4	5.1-6.0
	4-53	3.5-8.1	2.6-6.1	5.1-6.0
Redbrush-------------	0-5	3.6-14	2.7-10	5.1-7.8
	5-12	3.6-12	2.7-8.8	5.1-7.8
	12-23	12-22	9.2-17	5.1-7.8
	23-30	5.3-19	4.0-14	5.1-7.8
	30-38	---	---	---
	38-80	---	---	---
35A:				
Nikwasi--------------	0-10	12-32	9.4-24	4.5-6.5
	10-28	12-32	9.4-24	4.5-6.5
	28-60	0.2-3.5	0.2-2.6	4.5-6.5
Dellwood-------------	0-8	8.0-22	6.0-16	4.5-6.0
	8-18	2.4-8.3	1.8-6.2	4.5-6.0
	18-60	0.8-4.8	0.6-3.6	4.5-6.0
36D:				
Peaks----------------	0-5	3.3-13	2.5-9.8	4.5-6.0
	5-34	1.3-5.6	1.0-4.2	4.5-6.0
	34-80	---	---	---
Edneyville-----------	0-6	3.5-18	2.6-14	4.5-6.0
	6-29	2.9-9.0	2.2-6.8	4.5-6.0
	29-61	2.4-9.5	1.8-7.1	4.5-6.0
36E:				
Peaks----------------	0-5	3.3-13	2.5-9.8	4.5-6.0
	5-34	1.3-5.6	1.0-4.2	4.5-6.0
	34-80	---	---	---
Edneyville-----------	0-6	3.5-18	2.6-14	4.5-6.0
	6-29	2.9-9.0	2.2-6.8	4.5-6.0
	29-61	2.4-9.5	1.8-7.1	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
37F:				
Peaks	0-5	3.3-13	2.5-9.8	4.5-6.0
	5-34	1.3-5.6	1.0-4.2	4.5-6.0
	34-80	---	---	---
Rock outcrop.				
38C:				
Penhook	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
Goblintown	0-6	3.3-9.5	2.5-7.1	4.5-6.0
	6-20	3.5-6.6	2.6-5.0	4.5-6.0
	20-37	1.5-5.1	1.1-3.8	4.5-6.0
	37-80	---	---	---
39C:				
Penhook	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
Strawfield	0-2	4.8-17	3.6-13	3.5-5.5
	2-9	6.1-12	4.6-9.2	3.5-5.5
	9-22	8.8-16	6.6-12	3.5-5.5
	22-80	---	---	---
39D:				
Penhook	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
Strawfield	0-2	4.8-17	3.6-13	3.5-5.5
	2-9	6.1-12	4.6-9.2	3.5-5.5
	9-22	8.8-16	6.6-12	3.5-5.5
	22-80	---	---	---
39E:				
Penhook	0-6	2.9-11	2.2-8.5	3.5-5.5
	6-43	8.8-16	6.6-12	3.5-5.5
	43-63	1.3-7.9	1.0-5.9	3.5-5.5
Strawfield	0-2	4.8-17	3.6-13	3.5-5.5
	2-9	6.1-12	4.6-9.2	3.5-5.5
	9-22	8.8-16	6.6-12	3.5-5.5
	22-80	---	---	---
40E:				
Rhodhiss	0-5	2.4-9.5	1.8-7.1	4.5-6.0
	5-38	4.5-9.9	3.4-7.4	4.5-6.0
	38-80	1.3-6.1	1.0-4.6	4.5-6.0
Stott Knob	0-4	4.3-16	3.2-12	4.5-6.0
	4-19	4.5-9.9	3.4-7.4	4.5-6.0
	19-31	2.0-6.1	1.5-4.6	4.5-6.0
	31-38	2.0-6.1	1.5-4.6	4.5-6.0
	38-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
41B:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
41C:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
41D:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
42B:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
Thunder	0-7	4.7-16	3.5-12	5.1-6.5
	7-24	2.5-15	1.8-11	5.1-6.5
	24-49	2.5-15	1.8-11	5.1-6.5
	49-60	2.5-15	1.8-11	5.1-6.5
42C:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
Thunder	0-7	4.7-16	3.5-12	5.1-6.5
	7-24	2.5-15	1.8-11	5.1-6.5
	24-49	2.5-15	1.8-11	5.1-6.5
	49-60	2.5-15	1.8-11	5.1-6.5
42D:				
Saunook	0-9	7.0-27	5.2-21	5.1-6.0
	9-33	2.5-15	1.8-12	5.1-6.0
	33-60	2.5-15	1.8-12	5.1-6.0
Thunder	0-7	4.7-16	3.5-12	5.1-6.5
	7-24	2.5-15	1.8-11	5.1-6.5
	24-49	2.5-15	1.8-11	5.1-6.5
	49-60	2.5-15	1.8-11	5.1-6.5
43B:				
Thurmont	0-4	4.8-13	3.6-9.8	4.5-5.5
	4-50	4.5-9.9	3.4-7.4	4.5-5.5
	50-62	4.5-9.9	3.4-7.4	4.5-5.5
	62-90	2.5-16	1.9-12	4.5-5.5
43C:				
Thurmont	0-4	4.8-13	3.6-9.8	4.5-5.5
	4-50	4.5-9.9	3.4-7.4	4.5-5.5
	50-62	4.5-9.9	3.4-7.4	4.5-5.5
	62-90	2.5-16	1.9-12	4.5-5.5

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
43D:				
Thurmont	0-4	4.8-13	3.6-9.8	4.5-5.5
	4-50	4.5-9.9	3.4-7.4	4.5-5.5
	50-62	4.5-9.9	3.4-7.4	4.5-5.5
	62-90	2.5-16	1.9-12	4.5-5.5
44C:				
Thurmont	0-4	4.8-13	3.6-9.8	4.5-5.5
	4-50	4.5-9.9	3.4-7.4	4.5-5.5
	50-62	4.5-9.9	3.4-7.4	4.5-5.5
	62-90	2.5-16	1.9-12	4.5-5.5
44D:				
Thurmont	0-4	4.8-13	3.6-9.8	4.5-5.5
	4-50	4.5-9.9	3.4-7.4	4.5-5.5
	50-62	4.5-9.9	3.4-7.4	4.5-5.5
	62-90	2.5-16	1.9-12	4.5-5.5
45B:				
Trimont	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
45C:				
Trimont	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
45D:				
Trimont	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
45E:				
Trimont	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
46B:				
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler---------------	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
46C:				
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler---------------	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
46D:				
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler---------------	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
46E:				
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
Kibler---------------	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
47C:				
Tuckasegee-----------	0-17	8.0-23	6.0-17	4.5-6.0
	17-60	5.6-13	4.2-10	4.5-6.0
Cullasaja------------	0-7	12-40	9.4-30	4.5-6.0
	7-23	2.4-9.0	1.8-6.8	4.5-6.0
	23-60	2.4-9.0	1.8-6.8	4.5-6.0
47D:				
Tuckasegee-----------	0-17	8.0-23	6.0-17	4.5-6.0
	17-60	5.6-13	4.2-10	4.5-6.0
Cullasaja------------	0-7	12-40	9.4-30	4.5-6.0
	7-23	2.4-9.0	1.8-6.8	4.5-6.0
	23-60	2.4-9.0	1.8-6.8	4.5-6.0

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
47E:				
Tuckasegee-----------	0-17	8.0-23	6.0-17	4.5-6.0
	17-60	5.6-13	4.2-10	4.5-6.0
Cullasaja------------	0-7	12-40	9.4-30	4.5-6.0
	7-23	2.4-9.0	1.8-6.8	4.5-6.0
	23-60	2.4-9.0	1.8-6.8	4.5-6.0
48.				
Udorthents				
49F:				
Widgett--------------	0-9	12-40	9.4-30	3.5-5.5
	9-24	2.4-9.0	1.8-6.8	3.5-5.5
	24-35	2.4-9.0	1.8-6.8	3.5-5.5
	35-80	---	---	---
Kibler---------------	0-8	9.3-23	7.0-17	4.5-6.0
	8-32	1.3-9.0	1.0-6.8	4.5-6.0
	32-54	1.3-9.0	1.0-6.8	4.5-6.0
	54-80	---	---	---
50D:				
Widgett--------------	0-9	12-40	9.4-30	3.5-5.5
	9-24	2.4-9.0	1.8-6.8	3.5-5.5
	24-35	2.4-9.0	1.8-6.8	3.5-5.5
	35-80	---	---	---
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
50E:				
Widgett--------------	0-9	12-40	9.4-30	3.5-5.5
	9-24	2.4-9.0	1.8-6.8	3.5-5.5
	24-35	2.4-9.0	1.8-6.8	3.5-5.5
	35-80	---	---	---
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
50F:				
Widgett--------------	0-9	12-40	9.4-30	3.5-5.5
	9-24	2.4-9.0	1.8-6.8	3.5-5.5
	24-35	2.4-9.0	1.8-6.8	3.5-5.5
	35-80	---	---	---
Trimont--------------	0-10	8.8-25	6.6-19	4.5-6.0
	10-33	5.6-13	4.2-10	4.5-6.0
	33-80	2.0-6.1	1.5-4.6	4.5-6.0
51B:				
Woolwine-------------	0-2	3.0-9.5	2.3-7.1	3.5-6.0
	2-28	3.5-7.1	2.6-5.3	3.5-6.0
	28-42	---	---	---
	42-80	---	---	---

Table 17.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
51B:				
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
51C:				
Woolwine-------------	0-2	3.0-9.5	2.3-7.1	3.5-6.0
	2-28	3.5-7.1	2.6-5.3	3.5-6.0
	28-42	---	---	---
	42-80	---	---	---
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
51D:				
Woolwine-------------	0-2	3.0-9.5	2.3-7.1	3.5-6.0
	2-28	3.5-7.1	2.6-5.3	3.5-6.0
	28-42	---	---	---
	42-80	---	---	---
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
51E:				
Woolwine-------------	0-2	3.0-9.5	2.3-7.1	3.5-6.0
	2-28	3.5-7.1	2.6-5.3	3.5-6.0
	28-42	---	---	---
	42-80	---	---	---
Fairview-------------	0-9	3.3-8.8	2.5-6.6	4.5-6.0
	9-23	3.5-7.1	2.6-5.3	4.5-6.0
	23-29	1.0-5.1	0.8-3.8	4.5-6.0
	29-80	1.0-3.8	0.8-2.9	4.5-6.0
W.				
Water				

Table 18.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequ
flooding apply to the whole year rather than to individual months. Absence of an entry indicates that
a concern or that data were not estimated)

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			D
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
1D:									
Bellspur	B	High	Jan-Dec	---	---	---	---	None	
Kibler	B	High	Jan-Dec	---	---	---	---	None	
1E:									
Bellspur	B	High	Jan-Dec	---	---	---	---	None	
Kibler	B	Medium	Jan-Dec	---	---	---	---	None	
2C:									
Bellspur	B	High	Jan-Dec	---	---	---	---	None	
Trimont	B	Medium	Jan-Dec	---	---	---	---	None	
3C:									
Bluemount	C	High	Jan-Dec	---	---	---	---	None	
3D:									
Bluemount	C	High	Jan-Dec	---	---	---	---	None	
3E:									
Bluemount	C	High	Jan-Dec	---	---	---	---	None	
4B:									
Braddock	B	Low	Jan-Dec	---	---	---	---	None	
4C:									
Braddock	B	Medium	Jan-Dec	---	---	---	---	None	
4D:									
Braddock	B	High	Jan-Dec	---	---	---	---	None	
5B:									
Braddock	B	Low	Jan-Dec	---	---	---	---	None	
5C:									
Braddock	B	Medium	Jan-Dec	---	---	---	---	None	
5D:									
Braddock	B	High	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
6F:									
Bugley-------------------	C/D	Very high	Jan-Dec	---	---	---	---	None	
Littlejoe----------------	B	High	Jan-Dec	---	---	---	---	None	
7C:									
Cliffield----------------	B	Medium	Jan-Dec	---	---	---	---	None	
Evard--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
7D:									
Cliffield----------------	B	High	Jan-Dec	---	---	---	---	None	
Evard--------------------	B	High	Jan-Dec	---	---	---	---	None	
7E:									
Cliffield----------------	B	High	Jan-Dec	---	---	---	---	None	
Evard--------------------	B	High	Jan-Dec	---	---	---	---	None	
7F:									
Cliffield----------------	B	High	Jan-Dec	---	---	---	---	None	
Evard--------------------	B	High	Jan-Dec	---	---	---	---	None	
8B2:									
Clifford-----------------	B	Medium	Jan-Dec	---	---	---	---	None	
8C2:									
Clifford-----------------	B	Medium	Jan-Dec	---	---	---	---	None	
9A:									
Colvard------------------	B	Negligible	Jan-Apr	---	---	---	---	None	Ve
			May-Oct	---	---	---	---	None	Ve
			Nov-Dec	---	---	---	---	None	Ve
Suches-------------------	B	Low	Jan-May	2.5-4.0	>6.0	---	---	None	Ve
			Jun	4.0-6.0	>6.0	---	---	None	Ve
			Jul-Oct	---	---	---	---	None	Ve
			Nov	4.0-6.0	>6.0	---	---	None	Ve
			Dec	2.5-4.0	>6.0	---	---	None	Ve
10A:									
Comus--------------------	B	Low	Jan	---	---	---	---	None	Ve
			Feb-May	---	---	---	---	None	Ve
			Jun-Dec	---	---	---	---	None	Ve

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
10A:									
Elsinboro------------------	B	Low	Jan-Apr	5.0-6.6	>6.0	---	---	None	Ve
			May-Nov	---	---	---	---	None	Ve
			Dec	5.0-6.6	>6.0	---	---	None	Ve
11B:									
Dillard--------------------	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	Ve
			May	3.0-6.0	>6.0	---	---	None	Ve
			Jun	4.0-6.6	>6.0	---	---	None	Ve
			Jul-Sep	---	---	---	---	None	Ve
			Oct	4.0-6.6	>6.0	---	---	None	Ve
			Nov	3.0-6.0	>6.0	---	---	None	Ve
			Dec	2.0-3.0	>6.0	---	---	None	Ve
12C:									
Dillard--------------------	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	
			May	3.0-6.0	>6.0	---	---	None	
			Jun	4.0-6.6	>6.0	---	---	None	
			Jul-Sep	---	---	---	---	None	
			Oct	4.0-6.6	>6.0	---	---	None	
			Nov	3.0-6.0	>6.0	---	---	None	
			Dec	2.0-3.0	>6.0	---	---	None	
13B:									
Dillard--------------------	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	Ve
			May	3.0-6.0	>6.0	---	---	None	Ve
			Jun	4.0-6.6	>6.0	---	---	None	Ve
			Jul-Sep	---	---	---	---	None	Ve
			Oct	4.0-6.6	>6.0	---	---	None	Ve
			Nov	3.0-6.0	>6.0	---	---	None	Ve
			Dec	2.0-3.0	>6.0	---	---	None	Ve
Tugglesgap-----------------	B	Very high	Jan-Apr	0.5-1.5	>6.0	---	---	None	Ve
			May	2.0-6.0	>6.0	---	---	None	Ve
			Jun	4.0-6.6	>6.0	---	---	None	Ve
			Jul-Sep	---	---	---	---	None	Ve
			Oct	4.0-6.6	>6.0	---	---	None	Ve
			Nov	2.0-6.0	>6.0	---	---	None	Ve
			Dec	0.5-1.5	>6.0	---	---	None	Ve
14C:									
Dillard--------------------	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	
			May	3.0-6.0	>6.0	---	---	None	
			Jun	4.0-6.6	>6.0	---	---	None	
			Jul-Sep	---	---	---	---	None	
			Oct	4.0-6.6	>6.0	---	---	None	
			Nov	3.0-6.0	>6.0	---	---	None	
			Dec	2.0-3.0	>6.0	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
14C:									
Tugglesgap	B	Very high	Jan-Apr	0.5-1.5	>6.0	---	---	None	
			May	2.0-6.0	>6.0	---	---	None	
			Jun	4.0-6.6	>6.0	---	---	None	
			Jul-Sep	---	---	---	---	None	
			Oct	4.0-6.6	>6.0	---	---	None	
			Nov	2.0-6.0	>6.0	---	---	None	
			Dec	0.5-1.5	>6.0	---	---	None	
15B:									
Dillsboro	B	Low	Jan-Dec	---	---	---	---	None	Ve
16C:									
Dillsboro	B	Medium	Jan-Dec	---	---	---	---	None	
17B:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	Medium	Jan-Dec	---	---	---	---	None	
17C:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	Medium	Jan-Dec	---	---	---	---	None	
17D:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	Medium	Jan-Dec	---	---	---	---	None	
17E:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	Medium	Jan-Dec	---	---	---	---	None	
18B:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	High	Jan-Dec	---	---	---	---	None	
18C:									
Evard	B	Medium	Jan-Dec	---	---	---	---	None	
Cowee	B	High	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			D
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
18D:									
Evard	B	High	Jan-Dec	---	---	---	---	None	
Cowee	B	High	Jan-Dec	---	---	---	---	None	
18E:									
Evard	B	High	Jan-Dec	---	---	---	---	None	
Cowee	B	High	Jan-Dec	---	---	---	---	None	
19B2:									
Fairview	B	Low	Jan-Dec	---	---	---	---	None	
19C2:									
Fairview	B	Medium	Jan-Dec	---	---	---	---	None	
19D2:									
Fairview	B	High	Jan-Dec	---	---	---	---	None	
20B:									
Fairview	B	Low	Jan-Dec	---	---	---	---	None	
20C:									
Fairview	B	Medium	Jan-Dec	---	---	---	---	None	
20D:									
Fairview	B	High	Jan-Dec	---	---	---	---	None	
21E:									
Fairview	B	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
22E:									
Fairview	B	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
23C:									
Fairystone	B	Medium	Jan-Dec	---	---	---	---	None	
Littlejoe	B	High	Jan-Dec	---	---	---	---	None	
24D:									
Fairystone	B	Medium	Jan-Dec	---	---	---	---	None	
Littlejoe	B	High	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
25E:									
Fairystone	B	Medium	Jan-Dec	---	---	---	---	None	
Littlejoe	B	High	Jan-Dec	---	---	---	---	None	
26A:									
French	C	Low	Jan-May	1.0-2.5	>6.0	---	---	None	Ve
			Jun	2.0-4.0	>6.0	---	---	None	Ve
			Jul-Oct	---	---	---	---	None	Ve
			Nov	2.0-4.0	>6.0	---	---	None	Ve
			Dec	1.0-2.5	>6.0	---	---	None	Ve
27A:									
French	C	Low	Jan-May	1.0-2.5	>6.0	---	---	None	Ve
			Jun	2.0-4.0	>6.0	---	---	None	Ve
			Jul-Oct	---	---	---	---	None	Ve
			Nov	2.0-4.0	>6.0	---	---	None	Ve
			Dec	1.0-2.5	>6.0	---	---	None	Ve
Dellwood	A	Very low	Jan-Apr	2.0-4.0	>6.0	---	---	None	Ve
			May	4.0-6.6	>6.0	---	---	None	Ve
			Jun-Oct	---	---	---	---	None	Ve
			Nov	4.0-6.6	>6.0	---	---	None	Ve
			Dec	2.0-4.0	>6.0	---	---	None	Ve
28D:									
Goblintown	B	High	Jan-Dec	---	---	---	---	None	
Penhook	B	High	Jan-Dec	---	---	---	---	None	
28E:									
Goblintown	B	High	Jan-Dec	---	---	---	---	None	
Penhook	B	High	Jan-Dec	---	---	---	---	None	
29A:									
Hatboro	B/D	Low	Jan-Apr	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	Ve
			May	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Ve
			Jun	0.5-2.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Jul	1.0-3.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Aug	2.0-5.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Sep	0.5-2.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Oct	0.0-1.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Nov	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Ve
			Dec	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	Ve

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
30F:									
Hickoryknob	C	High	Jan-Dec	---	---	---	---	None	
Rhodhiss	B	High	Jan-Dec	---	---	---	---	None	
31C:									
Meadowfield	C	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
31D:									
Meadowfield	C	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
32E:									
Meadowfield	C	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
32F:									
Meadowfield	B	High	Jan-Dec	---	---	---	---	None	
Stott Knob	B	High	Jan-Dec	---	---	---	---	None	
33B:									
Minnieville	C	Medium	Jan-Dec	---	---	---	---	None	
33C:									
Minnieville	C	Medium	Jan-Dec	---	---	---	---	None	
33D:									
Minnieville	C	High	Jan-Dec	---	---	---	---	None	
33E:									
Minnieville	C	High	Jan-Dec	---	---	---	---	None	
34B:									
Minnieville	C	Medium	Jan-Dec	---	---	---	---	None	
Redbrush	C	Very high	Jan-Dec	---	---	---	---	None	
34C:									
Minnieville	C	Medium	Jan-Dec	---	---	---	---	None	
Redbrush	C	Very high	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
34D:									
Minnieville----------------	C	High	Jan-Dec	---	---	---	---	None	
Redbrush------------------	C	Very high	Jan-Dec	---	---	---	---	None	
35A:									
Nikwasi-------------------	B/D	Very low	Jan-Mar	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	Ve
			Apr	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Ve
			May	0.0-1.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Jun	0.5-2.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Jul	1.0-3.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Aug	2.0-5.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Sep	0.5-2.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Oct	0.0-1.0	>6.0	0.0-0.5	Brief	Rare	Ve
			Nov	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Ve
			Dec	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	Ve
Dellwood------------------	A	Very low	Jan-Apr	2.0-4.0	>6.0	---	---	None	Ve
			May	4.0-6.6	>6.0	---	---	None	Ve
			Jun-Oct	---	---	---	---	None	Ve
			Nov	4.0-6.6	>6.0	---	---	None	Ve
			Dec	2.0-4.0	>6.0	---	---	None	Ve
36D:									
Peaks---------------------	C	High	Jan-Dec	---	---	---	---	None	
Edneyville----------------	B	Medium	Jan-Dec	---	---	---	---	None	
36E:									
Peaks---------------------	C	High	Jan-Dec	---	---	---	---	None	
Edneyville----------------	B	Medium	Jan-Dec	---	---	---	---	None	
37F:									
Peaks---------------------	C	High	Jan-Dec	---	---	---	---	None	
Rock outcrop.									
38C:									
Penhook-------------------	B	High	Jan-Dec	---	---	---	---	None	
Goblintown----------------	B	High	Jan-Dec	---	---	---	---	None	
39C:									
Penhook-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
Strawfield----------------	B	Medium	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency
				Ft	Ft	Ft		
39D:								
Penhook------------------	B	High	Jan-Dec	---	---	---	---	None
Strawfield---------------	B	High	Jan-Dec	---	---	---	---	None
39E:								
Penhook------------------	B	High	Jan-Dec	---	---	---	---	None
Strawfield---------------	B	High	Jan-Dec	---	---	---	---	None
40E:								
Rhodhiss-----------------	B	High	Jan-Dec	---	---	---	---	None
Stott Knob---------------	B	High	Jan-Dec	---	---	---	---	None
41B:								
Saunook------------------	B	Low	Jan-Dec	---	---	---	---	None
41C:								
Saunook------------------	B	Low	Jan-Dec	---	---	---	---	None
41D:								
Saunook------------------	B	Low	Jan-Dec	---	---	---	---	None
42B:								
Saunook------------------	B	Low	Jan-Dec	---	---	---	---	None
Thunder------------------	B	Low	Jan-Dec	---	---	---	---	None
42C:								
Saunook------------------	B	Medium	Jan-Dec	---	---	---	---	None
Thunder------------------	B	Medium	Jan-Dec	---	---	---	---	None
42D:								
Saunook------------------	B	Medium	Jan-Dec	---	---	---	---	None
Thunder------------------	B	Medium	Jan-Dec	---	---	---	---	None
43B:								
Thurmont-----------------	B	Low	Jan-May	4.0-6.6	>6.0	---	---	None
			Jun-Nov	---	---	---	---	None
			Dec	4.0-6.6	>6.0	---	---	None
43C:								
Thurmont-----------------	B	Low	Jan-May	4.0-6.6	>6.0	---	---	None
			Jun-Nov	---	---	---	---	None
			Dec	4.0-6.6	>6.0	---	---	None

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
43D:									
Thurmont------------------	B	Low	Jan-May	4.0-6.6	>6.0	---	---	None	
			Jun-Nov	---	---	---	---	None	
			Dec	4.0-6.6	>6.0	---	---	None	
44C:									
Thurmont------------------	B	Low	Jan-May	4.0-6.6	>6.0	---	---	None	
			Jun-Nov	---	---	---	---	None	
			Dec	4.0-6.6	>6.0	---	---	None	
44D:									
Thurmont------------------	B	Low	Jan-May	4.0-6.6	>6.0	---	---	None	
			Jun-Nov	---	---	---	---	None	
			Dec	4.0-6.6	>6.0	---	---	None	
45B:									
Trimont-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
45C:									
Trimont-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
45D:									
Trimont-------------------	B	High	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
45E:									
Trimont-------------------	B	High	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
46B:									
Trimont-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	
46C:									
Trimont-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
Kibler--------------------	B	Medium	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	D
				Ft	Ft	Ft			
46D:									
Trimont------------------	B	High	Jan-Dec	---	---	---	---	None	
Kibler-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
46E:									
Trimont------------------	B	High	Jan-Dec	---	---	---	---	None	
Kibler-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
47C:									
Tuckasegee---------------	B	Medium	Jan-Dec	---	---	---	---	None	
Cullasaja----------------	B	Low	Jan-Dec	---	---	---	---	None	
47D:									
Tuckasegee---------------	B	Medium	Jan-Dec	---	---	---	---	None	
Cullasaja----------------	B	Medium	Jan-Dec	---	---	---	---	None	
47E:									
Tuckasegee---------------	B	Medium	Jan-Dec	---	---	---	---	None	
Cullasaja----------------	B	Medium	Jan-Dec	---	---	---	---	None	
48. Udorthents									
49F:									
Widgett------------------	B	High	Jan-Dec	---	---	---	---	None	
Kibler-------------------	B	Medium	Jan-Dec	---	---	---	---	None	
50D:									
Widgett------------------	B	High	Jan-Dec	---	---	---	---	None	
Trimont------------------	B	High	Jan-Dec	---	---	---	---	None	
50E:									
Widgett------------------	B	High	Jan-Dec	---	---	---	---	None	
Trimont------------------	B	High	Jan-Dec	---	---	---	---	None	
50F:									
Widgett------------------	B	High	Jan-Dec	---	---	---	---	None	
Trimont------------------	B	High	Jan-Dec	---	---	---	---	None	

Table 18.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			D
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
51B:									
Woolwine------------------	B	---	Jan-Dec	---	---	---	---	None	
Fairview------------------	B	High	Jan-Dec	---	---	---	---	None	
51C:									
Woolwine------------------	B	---	Jan-Dec	---	---	---	---	None	
Fairview------------------	B	High	Jan-Dec	---	---	---	---	None	
51D:									
Woolwine------------------	B	---	Jan-Dec	---	---	---	---	None	
Fairview------------------	B	High	Jan-Dec	---	---	---	---	None	
51E:									
Woolwine------------------	B	---	Jan-Dec	---	---	---	---	None	
Fairview------------------	B	High	Jan-Dec	---	---	---	---	None	
W.									
Water									

Table 19.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness		Uncoated steel	Concrete
		In				
1D:						
Bellspur	Paralithic bedrock	20-40	Weakly cemented	Low	Low	High
	Lithic bedrock	40-60	Indurated			
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
1E:						
Bellspur	Paralithic bedrock	20-40	Weakly cemented	Low	Low	High
	Lithic bedrock	40-60	Indurated			
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
2C:						
Bellspur	Paralithic bedrock	20-40	Weakly cemented	Low	Low	High
	Lithic bedrock	40-60	Indurated			
Trimont	---	---	---	Low	Low	High
3C:						
Bluemount	Lithic bedrock	20-40	Indurated	None	Low	Moderate
3D:						
Bluemount	Lithic bedrock	20-40	Indurated	None	Low	Moderate
3E:						
Bluemount	Lithic bedrock	20-40	Indurated	None	Low	Moderate
4B:						
Braddock	---	---	---	Low	High	High
4C:						
Braddock	---	---	---	Low	High	High
4D:						
Braddock	---	---	---	Low	High	High
5B:						
Braddock	---	---	---	Low	High	High
5C:						
Braddock	---	---	---	Low	High	High
5D:						
Braddock	---	---	---	Low	High	High
6F:						
Bugley	Lithic bedrock	10-20	Indurated	None	Low	High
	Paralithic bedrock	10-20	Moderately cemented			

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In				
6F:						
Littlejoe-----------	Paralithic bedrock	40-60	Moderately cemented	None	High	High
	Lithic bedrock	40-80	Indurated			
7C:						
Cliffield-----------	Lithic bedrock	20-40	Indurated	Moderate	Moderate	High
Evard---------------	---	---	---	Moderate	Moderate	High
7D:						
Cliffield-----------	Lithic bedrock	20-40	Indurated	Moderate	Moderate	High
Evard---------------	---	---	---	Moderate	Moderate	High
7E:						
Cliffield-----------	Lithic bedrock	20-40	Indurated	Moderate	Moderate	High
Evard---------------	---	---	---	Moderate	Moderate	High
7F:						
Cliffield-----------	Lithic bedrock	20-40	Indurated	Moderate	Moderate	High
Evard---------------	---	---	---	Moderate	Moderate	High
8B2:						
Clifford------------	---	---	---	None	Moderate	High
8C2:						
Clifford------------	---	---	---	None	Moderate	High
9A:						
Colvard-------------	---	---	---	Moderate	Low	Moderate
Suches--------------	---	---	---	Low	Moderate	Moderate
10A:						
Comus---------------	---	---	---	None	Low	High
Elsinboro-----------	---	---	---	None	Moderate	High
11B:						
Dillard-------------	---	---	---	Low	Moderate	Moderate
12C:						
Dillard-------------	---	---	---	Low	Moderate	Moderate
13B:						
Dillard-------------	---	---	---	Low	Moderate	Moderate
Tugglesgap----------	---	---	---	Moderate	Moderate	Moderate
14C:						
Dillard-------------	---	---	---	Low	Moderate	Moderate
Tugglesgap----------	---	---	---	Moderate	Moderate	Moderate
15B:						
Dillsboro-----------	---	---	---	Low	Low	High

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness		Uncoated steel	Concrete
		In				
16C:						
Dillsboro	---	---	---	Low	Low	High
17B:						
Evard	---	---	---	Moderate	Moderate	High
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
17C:						
Evard	---	---	---	Moderate	Moderate	High
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
17D:						
Evard	---	---	---	Moderate	Moderate	High
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
17E:						
Evard	---	---	---	Moderate	Moderate	High
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
18B:						
Evard	---	---	---	Moderate	Moderate	Moderate
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
18C:						
Evard	---	---	---	Moderate	Moderate	Moderate
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
18D:						
Evard	---	---	---	Moderate	Moderate	Moderate
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			
18E:						
Evard	---	---	---	Moderate	Moderate	Moderate
Cowee	Paralithic bedrock	20-40	Moderately cemented	Moderate	Moderate	High
	Lithic bedrock	40-80	Indurated			

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In				
19B2:						
Fairview	---	---	---	Low	High	High
19C2:						
Fairview	---	---	---	Low	High	High
19D2:						
Fairview	---	---	---	Low	High	High
20B:						
Fairview	---	---	---	Low	High	High
20C:						
Fairview	---	---	---	Low	High	High
20D:						
Fairview	---	---	---	Low	High	High
21E:						
Fairview	---	---	---	Low	High	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
22E:						
Fairview	---	---	---	Low	High	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
23C:						
Fairystone	Lithic bedrock	20-40	Indurated	None	High	High
	Paralithic bedrock	20-40	Moderately cemented			
Littlejoe	Paralithic bedrock	40-60	Moderately cemented	None	High	High
	Lithic bedrock	40-80	Indurated			
24D:						
Fairystone	Lithic bedrock	20-40	Indurated	None	High	High
	Paralithic bedrock	20-40	Moderately cemented			
Littlejoe	Paralithic bedrock	40-60	Moderately cemented	None	High	High
	Lithic bedrock	40-80	Indurated			
25E:						
Fairystone	Lithic bedrock	20-40	Indurated	None	High	High
	Paralithic bedrock	20-40	Moderately cemented			
Littlejoe	Paralithic bedrock	40-60	Moderately cemented	None	High	High
	Lithic bedrock	40-80	Indurated			

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Depth to top	Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Concrete
		In				
26A:						
French	Strongly contrasting textural stratification	20-40	---	Low	Moderate	Moderate
27A:						
French	Strongly contrasting textural stratification	20-40	---	Low	Moderate	Moderate
Dellwood	---	---	---	Low	Low	Moderate
28D:						
Goblintown	Paralithic bedrock	20-40	Weakly cemented	None	High	High
Penhook	---	---	---	None	High	High
28E:						
Goblintown	Paralithic bedrock	20-40	Weakly cemented	None	High	High
Penhook	---	---	---	None	High	High
29A:						
Hatboro	Strongly contrasting textural stratification	40-80	---	Low	High	Moderate
30F:						
Hickoryknob	Paralithic bedrock	20-40	Moderately cemented	None	Low	Moderate
	Lithic bedrock	20-40	Indurated			
Rhodhiss	---	---	---	None	Moderate	High
31C:						
Meadowfield	Lithic bedrock	20-40	Indurated	Low	Moderate	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
31D:						
Meadowfield	Lithic bedrock	20-40	Indurated	Low	Moderate	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
32E:						
Meadowfield	Lithic bedrock	20-40	Indurated	Low	Moderate	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In				
32F:						
Meadowfield	Lithic bedrock	20-40	Indurated	Low	Moderate	High
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
33B:						
Minnieville	---	---	---	None	High	Moderate
33C:						
Minnieville	---	---	---	None	High	Moderate
33D:						
Minnieville	---	---	---	None	High	Moderate
33E:						
Minnieville	---	---	---	None	High	Moderate
34B:						
Minnieville	---	---	---	None	High	Moderate
Redbrush	Paralithic bedrock	20-40	Moderately cemented	None	High	Moderate
	Lithic bedrock	20-40	Indurated			
34C:						
Minnieville	---	---	---	None	High	Moderate
Redbrush	Paralithic bedrock	20-40	Moderately cemented	None	High	Moderate
	Lithic bedrock	20-40	Indurated			
34D:						
Minnieville	---	---	---	None	High	Moderate
Redbrush	Paralithic bedrock	20-40	Moderately cemented	None	High	Moderate
	Lithic bedrock	20-40	Indurated			
35A:						
Nikwasi	Strongly contrasting textural stratification	24-40	---	Low	High	Moderate
Dellwood	---	---	---	Low	Low	Moderate
36D:						
Peaks	Lithic bedrock	20-40	Indurated	Moderate	Low	High
Edneyville	---	---	---	Moderate	Moderate	Moderate
36E:						
Peaks	Lithic bedrock	20-40	Indurated	Moderate	Low	High
Edneyville	---	---	---	Moderate	Moderate	Moderate
37F:						
Peaks	Lithic bedrock	20-40	Indurated	Moderate	Low	High
Rock outcrop	Lithic bedrock	0-0	Indurated	None	---	---

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In				
38C:						
Penhook	---	---	---	None	High	High
Goblintown	Paralithic bedrock	20-40	Weakly cemented	None	High	High
39C:						
Penhook	---	---	---	None	High	High
Strawfield	Lithic bedrock	20-40	Indurated	None	High	High
39D:						
Penhook	---	---	---	None	High	High
Strawfield	Lithic bedrock	20-40	Indurated	None	High	High
39E:						
Penhook	---	---	---	None	High	High
Strawfield	Lithic bedrock	20-40	Indurated	None	High	High
40E:						
Rhodhiss	---	---	---	Low	Moderate	Moderate
Stott Knob	Paralithic bedrock	20-40	Moderately cemented	Low	Moderate	High
41B:						
Saunook	---	---	---	Low	Low	High
41C:						
Saunook	---	---	---	Low	Low	High
41D:						
Saunook	---	---	---	Low	Low	High
42B:						
Saunook	---	---	---	Low	Low	High
Thunder	---	---	---	Moderate	Moderate	Moderate
42C:						
Saunook	---	---	---	Low	Low	High
Thunder	---	---	---	Moderate	Moderate	Moderate
42D:						
Saunook	---	---	---	Low	Low	High
Thunder	---	---	---	Moderate	Moderate	Moderate
43B:						
Thurmont	---	---	---	None	Moderate	Moderate
43C:						
Thurmont	---	---	---	None	Moderate	Moderate
43D:						
Thurmont	---	---	---	None	Moderate	Moderate

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness		Uncoated steel	Concrete
		In				
44C:						
Thurmont	---	---	---	None	Moderate	Moderate
44D:						
Thurmont	---	---	---	None	Moderate	Moderate
45B:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
45C:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
45D:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
45E:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
46B:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
46C:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
46D:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
46E:						
Trimont	---	---	---	Low	Low	High
Kibler	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
47C:						
Tuckasegee	---	---	---	Moderate	Moderate	Moderate
Cullasaja	---	---	---	Moderate	High	High

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top (In)	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
47D:						
Tuckasegee----------	---	---	---	Moderate	Moderate	Moderate
Cullasaja-----------	---	---	---	Moderate	High	High
47E:						
Tuckasegee----------	---	---	---	Moderate	Moderate	Moderate
Cullasaja-----------	---	---	---	Moderate	High	High
48.						
Udorthents						
49F:						
Widgett-------------	Lithic bedrock	20-40	Indurated	Low	Low	High
Kibler--------------	Paralithic bedrock	40-60	Moderately cemented	Moderate	Low	High
50D:						
Widgett-------------	Lithic bedrock	20-40	Indurated	Low	Low	High
Trimont-------------	---	---	---	Low	Low	High
50E:						
Widgett-------------	Lithic bedrock	20-40	Indurated	Low	Low	High
Trimont-------------	---	---	---	Low	Low	High
50F:						
Widgett-------------	Lithic bedrock	20-40	Indurated	Low	Low	High
Trimont-------------	---	---	---	Low	Low	High
51B:						
Woolwine------------	Paralithic bedrock	20-40	Moderately cemented	Moderate	High	High
	Lithic bedrock	40-80	Indurated			
Fairview------------	---	---	---	Low	High	High
51C:						
Woolwine------------	Paralithic bedrock	20-40	Moderately cemented	Moderate	High	High
	Lithic bedrock	40-80	Indurated			
Fairview------------	---	---	---	Low	High	High
51D:						
Woolwine------------	Paralithic bedrock	20-40	Moderately cemented	Moderate	High	High
	Lithic bedrock	40-80	Indurated			
Fairview------------	---	---	---	Low	High	High

Table 19.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness		Uncoated steel	Concrete
		In				
51E:						
Woolwine------------	Paralithic bedrock	20-40	Moderately cemented	Moderate	High	High
	Lithic bedrock	40-80	Indurated			
Fairview------------	---	---	---	Low	High	High
W.						
Water						

Table 20.—Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Bellspur	Fine-loamy, micaceous, mesic Humic Dystrudepts
Bluemount	Fine-loamy, mixed, superactive, mesic Typic Hapludalfs
Braddock	Fine, mixed, semiactive, mesic Typic Hapludults
Bugley	Loamy-skeletal, mixed, semiactive, mesic Lithic Dystrudepts
Cliffield	Loamy-skeletal, mixed, subactive, mesic Typic Hapludults
Clifford	Fine, kaolinitic, mesic Typic Kanhapludults
Colvard	Coarse-loamy, mixed, active, nonacid, mesic Typic Udifluvents
Comus	Coarse-loamy, mixed, active, mesic Fluventic Dystrudepts
Cowee	Fine-loamy, parasesquic, mesic Typic Hapludults
Cullasaja	Loamy-skeletal, isotic, mesic Humic Dystrudepts
Dellwood	Sandy-skeletal, mixed, mesic Oxyaquic Dystrudepts
Dillard	Fine-loamy, mixed, semiactive, mesic Aquic Hapludults
Dillsboro	Fine, mixed, semiactive, mesic Humic Hapludults
Edneyville	Coarse-loamy, mixed, active, mesic Typic Dystrudepts
Elsinboro	Fine-loamy, mixed, semiactive, mesic Typic Hapludults
Evard	Fine-loamy, parasesquic, mesic Typic Hapludults
Fairview	Fine, kaolinitic, mesic Typic Kanhapludults
Fairystone	Clayey-skeletal, parasesquic, mesic Typic Hapludults
French	Fine-loamy over sandy or sandy-skeletal, mixed, active, mesic Fluvaquentic Dystrudepts
Goblintown	Fine, mixed, subactive, mesic Typic Hapludults
Hatboro	Fine-loamy, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts
Hickoryknob	Fine-loamy, micaceous, mesic Typic Hapludults
Kibler	Fine-loamy, micaceous, mesic Humic Dystrudepts
Littlejoe	Fine, mixed, subactive, mesic Typic Hapludults
Meadowfield	Loamy-skeletal, mixed, subactive, mesic Typic Hapludults
Minnieville	Fine, kaolinitic, mesic Typic Hapludults
Nikwasi	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, mesic Cumulic Humaquepts
Peaks	Loamy-skeletal, mixed, active, mesic Typic Dystrudepts
Penhook	Fine, mixed, subactive, mesic Typic Hapludults
Redbrush	Fine, mixed, superactive, mesic Typic Hapludalfs
Rhodhiss	Fine-loamy, mixed, semiactive, mesic Typic Hapludults
Saunook	Fine-loamy, mixed, superactive, mesic Humic Hapludults
Stott Knob	Fine-loamy, parasesquic, mesic Typic Hapludults
Strawfield	Fine, parasesquic, mesic Typic Hapludults
*Suches	Fine-loamy, mixed, semiactive, mesic Oxyaquic Dystrudepts
Thunder	Loamy-skeletal, mixed, active, mesic Humic Hapludults
*Thurmont	Fine-loamy, mixed, active, mesic Typic Hapludults
Trimont	Fine-loamy, mixed, active, mesic Humic Hapludults
Tuckasegee	Fine-loamy, isotic, mesic Humic Dystrudepts
Tugglesgap	Loamy-skeletal, mixed, subactive, mesic Aquic Hapludults
Udorthents	Udorthents
Widgett	Loamy-skeletal, mixed, semiactive, mesic Humic Hapludults
Woolwine	Fine, kaolinitic, mesic Typic Kanhapludults

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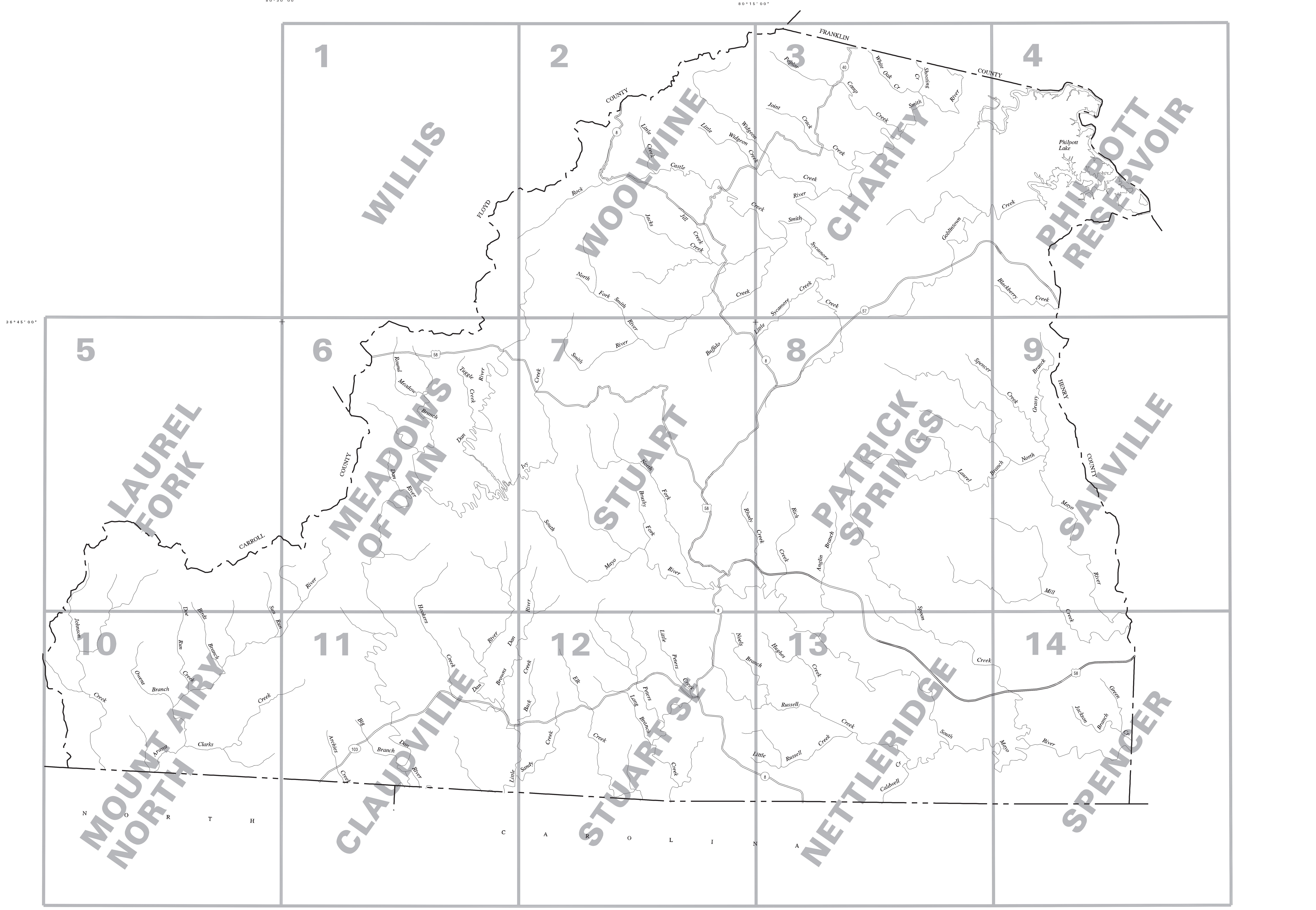

INDEX TO MAP SHEETS
PATRICK COUNTY, VIRGINIA

MILES

KILOMETERS

SCALE = 1:100000

GEND

OL	NAME
	Meadowfield-Stott Knob complex, 8 to 15 percent slopes, very stony
	Meadowfield-Stott Knob complex, 15 to 25 percent slopes, very stony
	Meadowfield-Stott Knob complex, 25 to 45 percent slopes, very rocky
	Meadowfield-Stott Knob complex, 45 to 90 percent slopes, very rocky
	Minnieville loam, 2 to 8 percent slopes
	Minnieville loam, 8 to 15 percent slopes
	Minnieville loam, 15 to 25 percent slopes
	Minnieville loam, 25 to 45 percent slopes
	Minnieville-Redbrush complex, 2 to 8 percent slopes
	Minnieville-Redbrush complex, 8 to 15 percent slopes
	Minnieville-Redbrush complex, 15 to 25 percent slopes
	Nikwasi-Dellwood complex, 0 to 4 percent slopes, frequently flooded
	Peaks-Edneyville complex, 15 to 25 percent slopes, very rocky
	Peaks-Edneyville complex, 25 to 45 percent slopes, very rocky
	Peaks-Rock outcrop complex, 45 to 90 percent slopes, very stony
	Penhook-Goblintown complex, 8 to 15 percent slopes
	Penhook-Strawfield complex, 8 to 15 percent slopes
	Penhook-Strawfield complex, 15 to 25 percent slopes
	Penhook-Strawfield complex, 25 to 45 percent slopes
	Rhodhiss-Stott Knob complex, 25 to 45 percent slopes
	Saunook loam, 2 to 8 percent slopes
	Saunook loam, 8 to 15 percent slopes
	Saunook loam, 15 to 25 percent slopes
	Saunook-Thunder complex, 2 to 8 percent slopes, very stony
	Saunook-Thunder complex, 8 to 15 percent slopes, very stony
	Saunook-Thunder complex, 15 to 25 percent slopes, very stony
	Thurmont fine sandy loam, 2 to 8 percent slopes
	Thurmont fine sandy loam, 8 to 15 percent slopes
	Thurmont fine sandy loam, 15 to 25 percent slopes
	Thurmont cobbly fine sandy loam, 8 to 15 percent slopes, very stony
	Thurmont cobbly fine sandy loam, 15 to 25 percent slopes, very stony
	Trimont-Kibler complex, 2 to 8 percent slopes
	Trimont-Kibler complex, 8 to 15 percent slopes
	Trimont-Kibler complex, 15 to 25 percent slopes
	Trimont-Kibler complex, 25 to 45 percent slopes
	Trimont-Kibler complex, 2 to 8 percent slopes, very stony
	Trimont-Kibler complex, 8 to 15 percent slopes, very stony
	Trimont-Kibler complex, 15 to 25 percent slopes, very stony
	Trimont-Kibler complex, 25 to 45 percent slopes, very stony
	Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, very stony
	Tuckasegee-Cullasaja complex, 15 to 25 percent slopes, very stony
	Tuckasegee-Cullasaja complex, 25 to 45 percent slopes, very stony
	Udorthents, loamy
	Widgett-Kibler complex, 45 to 75 percent slopes, very rocky
	Widgett-Trimont complex, 15 to 25 percent slopes, very rocky
	Widgett-Trimont complex, 25 to 45 percent slopes, very rocky
	Widgett-Trimont complex, 45 to 90 percent slopes, very rocky
	Woolwine-Fairview complex, 2 to 8 percent slopes, stony
	Woolwine-Fairview complex, 8 to 15 percent slopes, stony
	Woolwine-Fairview complex, 15 to 25 percent slopes, stony
	Woolwine-Fairview complex, 25 to 45 percent slopes, stony
	Water

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

BOUNDARIES

County or parish

Field sheet matchline & neatline

STATE COORDINATE TICK
1 890 000 FEET

GEOGRAPHIC COORDINATE TICK

TRANSPORTATION

RAILROAD — Label only

ROAD EMBLEM & DESIGNATIONS

Federal — 287

State — 52

HYDROGRAPHIC FEATURES

STREAMS

Unclassified stream

Drainage end (indicates direction of flow)

SOIL SURVEY FEATURES

SOIL DELINEATIONS AND SYMBOLS — 1D 1E

MISCELLANEOUS SURFACE FEATURES

Gravelly spot

Rock outcrop

Short steep slope

Stony spot

Wet spot

AD HOC SYMBOL

Bench, structural

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
WILLIS QUADRANGLE
SHEET NUMBER 1 OF 14

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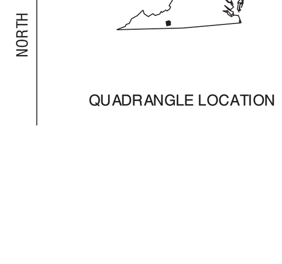
North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



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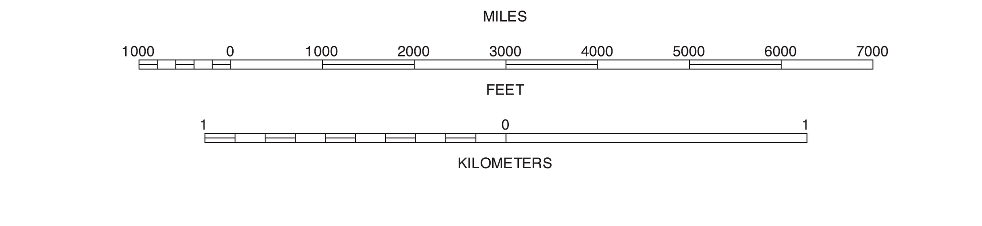

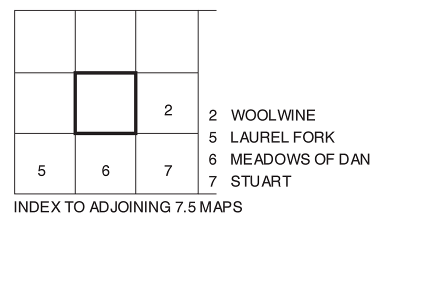

WILLIS, VIRGINIA

7.5 MINUTE SERIES
SHEET NUMBER 1 OF 14

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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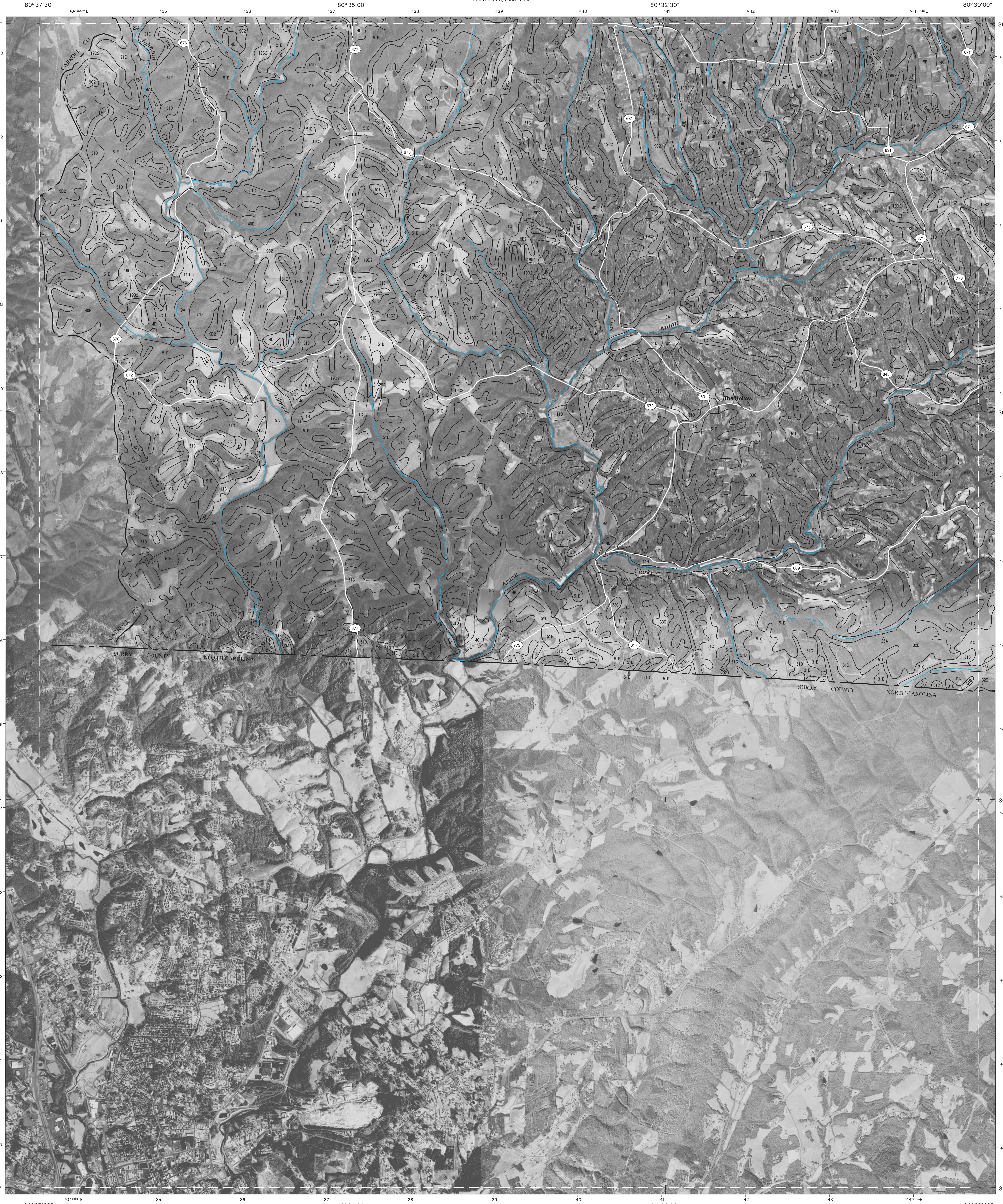
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
MOUNT AIRY NORTH QUADRANGLE (OVERSIZED)
SHEET NUMBER 10 OF 14



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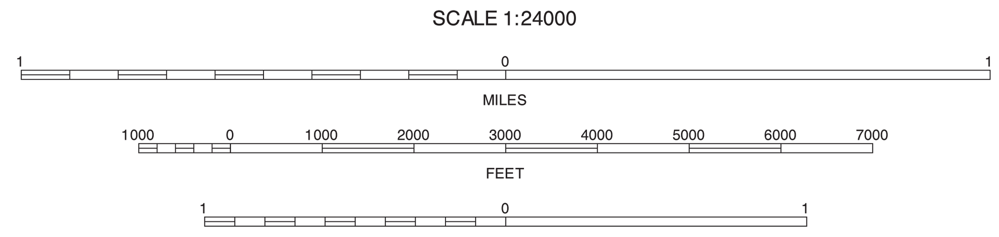

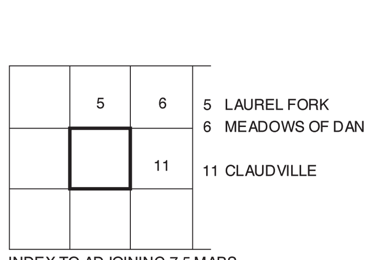

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MOUNT AIRY NORTH, (OVERSIZED) VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 10 OF 14

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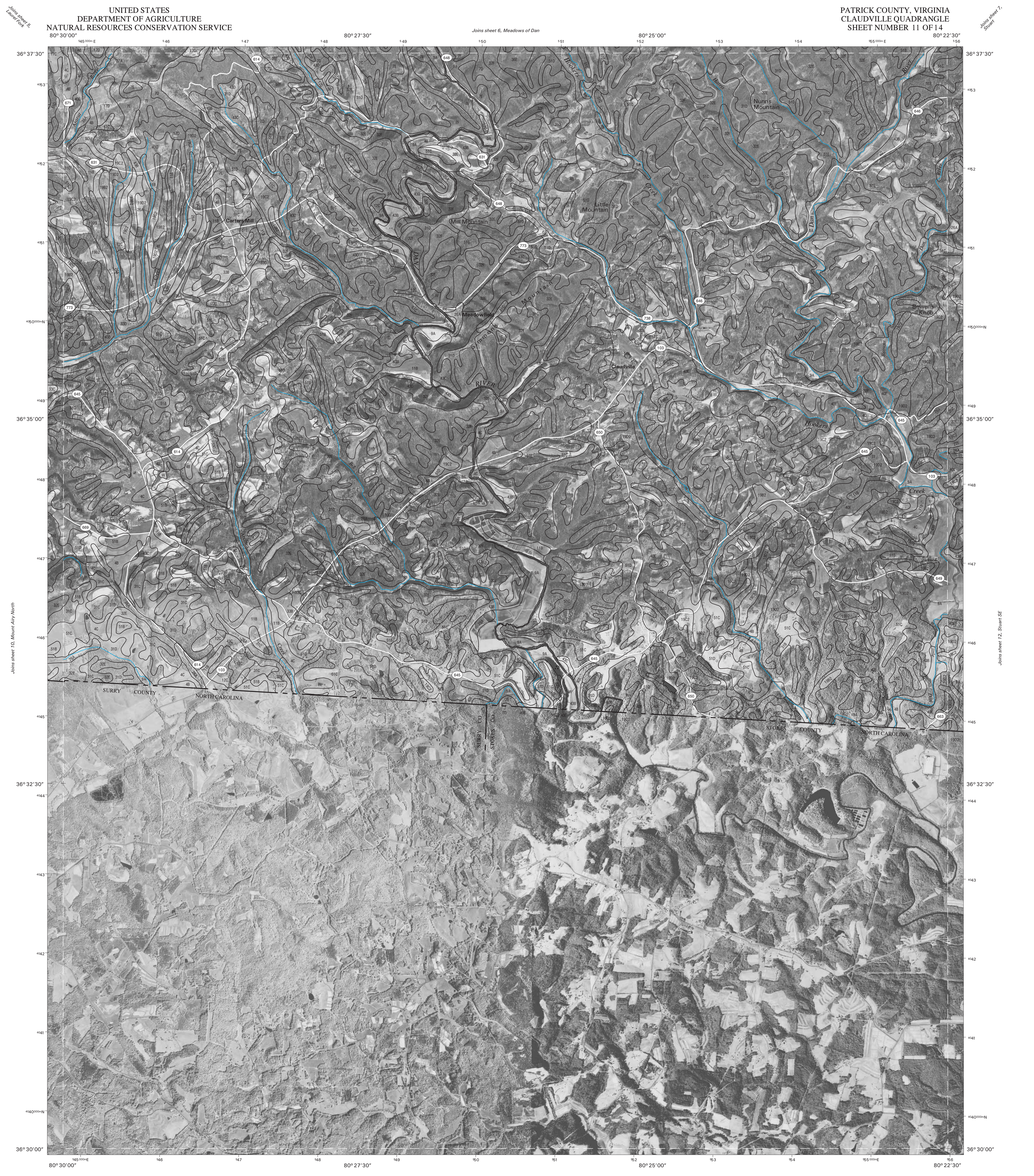
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
CLAUDVILLE QUADRANGLE
SHEET NUMBER 11 OF 14



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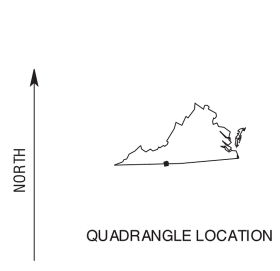
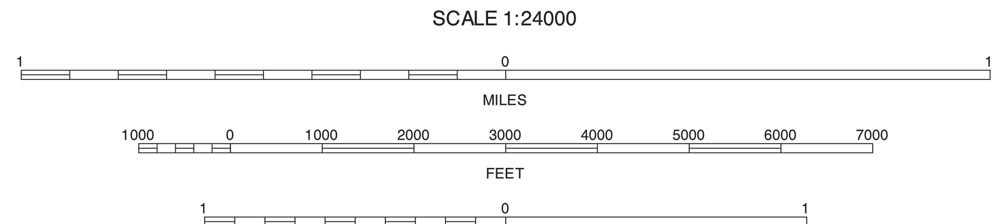
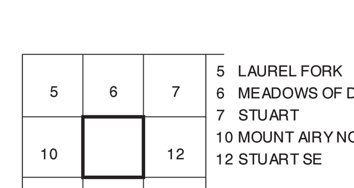


QUADRANGLE LOCATION

SCALE 1:24000





INDEX TO ADJOINING 7.5 MAPS

CLAUDVILLE, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 11 OF 14

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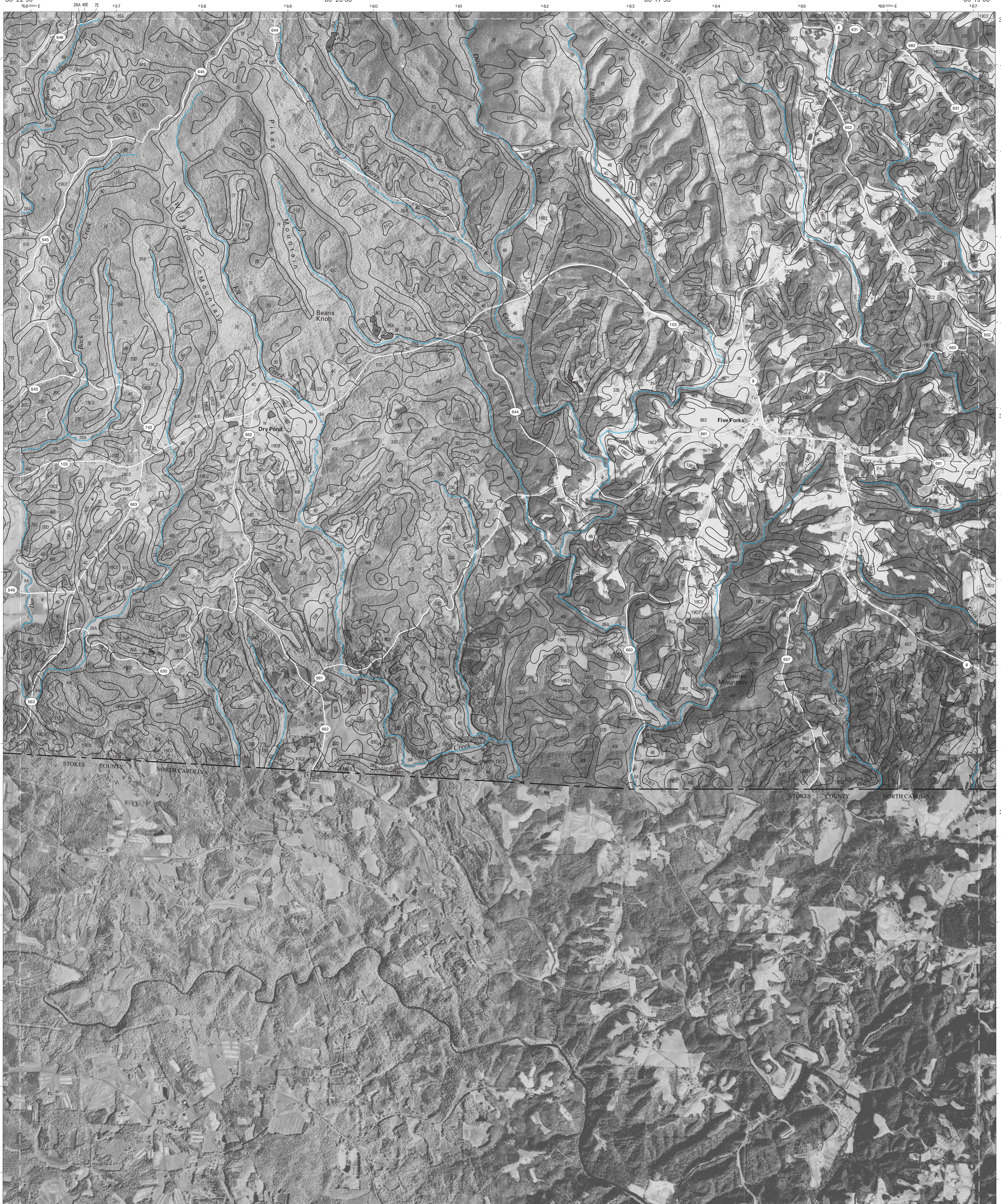
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
STUART SE QUADRANGLE
SHEET NUMBER 12 OF 14

Joins sheet 6, Meadows of Dan

Joins sheet 7, Stuart

Joins sheet 8, Patrick Springs



Joins sheet 11, Claudville

Joins sheet 13, Nettleridge

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North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

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7 STUART
8 PATRICK SPRINGS
11 CLAUDVILLE
13 NETTLERIDGE

STUART SE, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 12 OF 14

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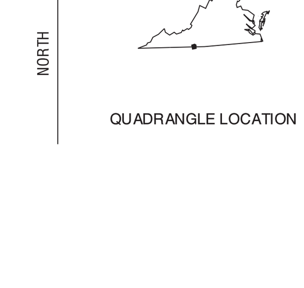

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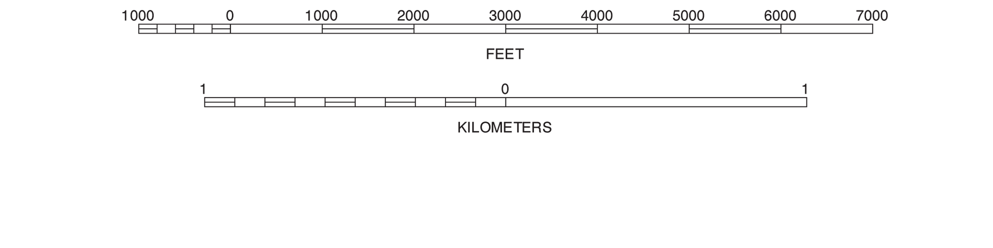

7	8	9
12		14

7 STUART
8 PATRICK SPRINGS
9 SANVILLE
12 STUART SE
14 SPENCER

INDEX TO ADJOINING 7.5 MAPS

NETTLERIDGE, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 13 OF 14

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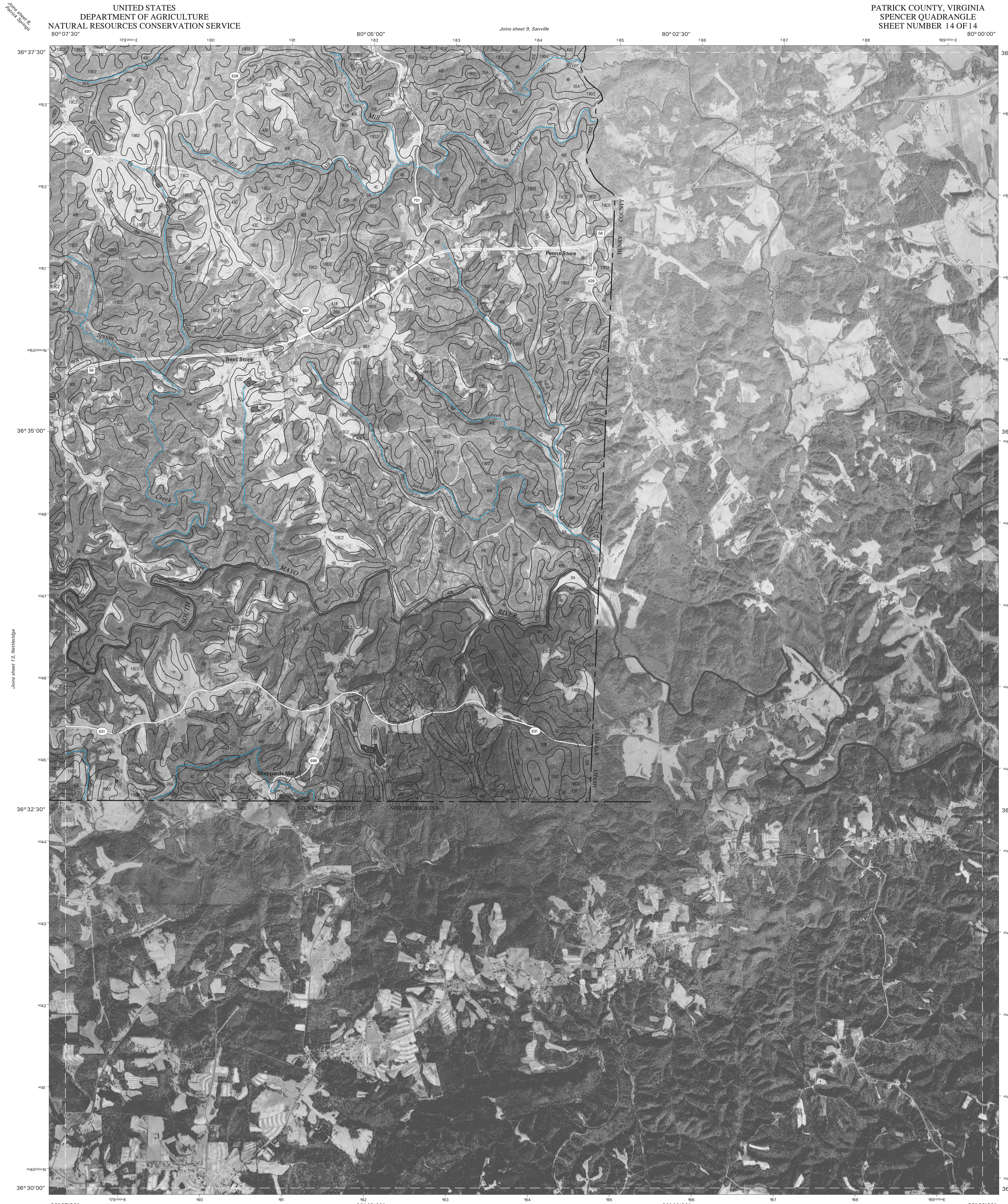
PATRICK COUNTY, VIRGINIA
SPENCER QUADRANGLE
SHEET NUMBER 14 OF 14



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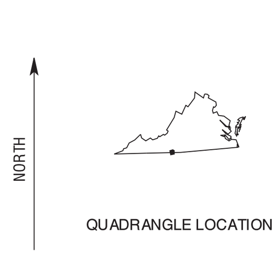
North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

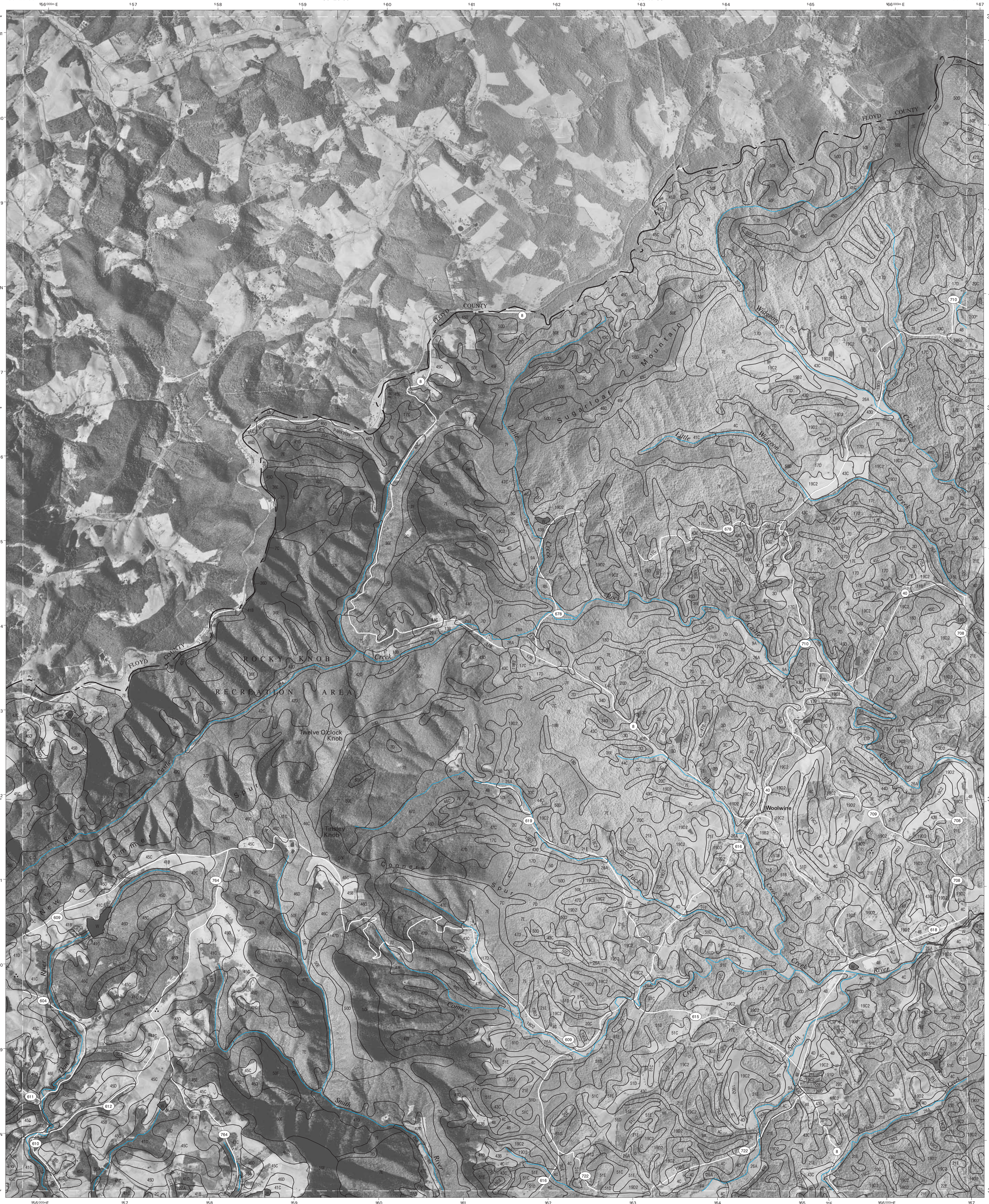
8	9	
13		

8 PATRICK SPRINGS
9 SANVILLE
13 NETTLERIDGE

INDEX TO ADJOINING 7.5 MAPS

SPENCER, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 14 OF 14

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



Joins sheet 6, Meadows of Dan

Joins sheet 8, Patrick Springs

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North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH


QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

1		3
6	7	8

1 WILLIS
3 CHARITY
6 MEADOWS OF DAN
7 STUART
8 PATRICK SPRINGS

INDEX TO ADJOINING 7.5 MAPS

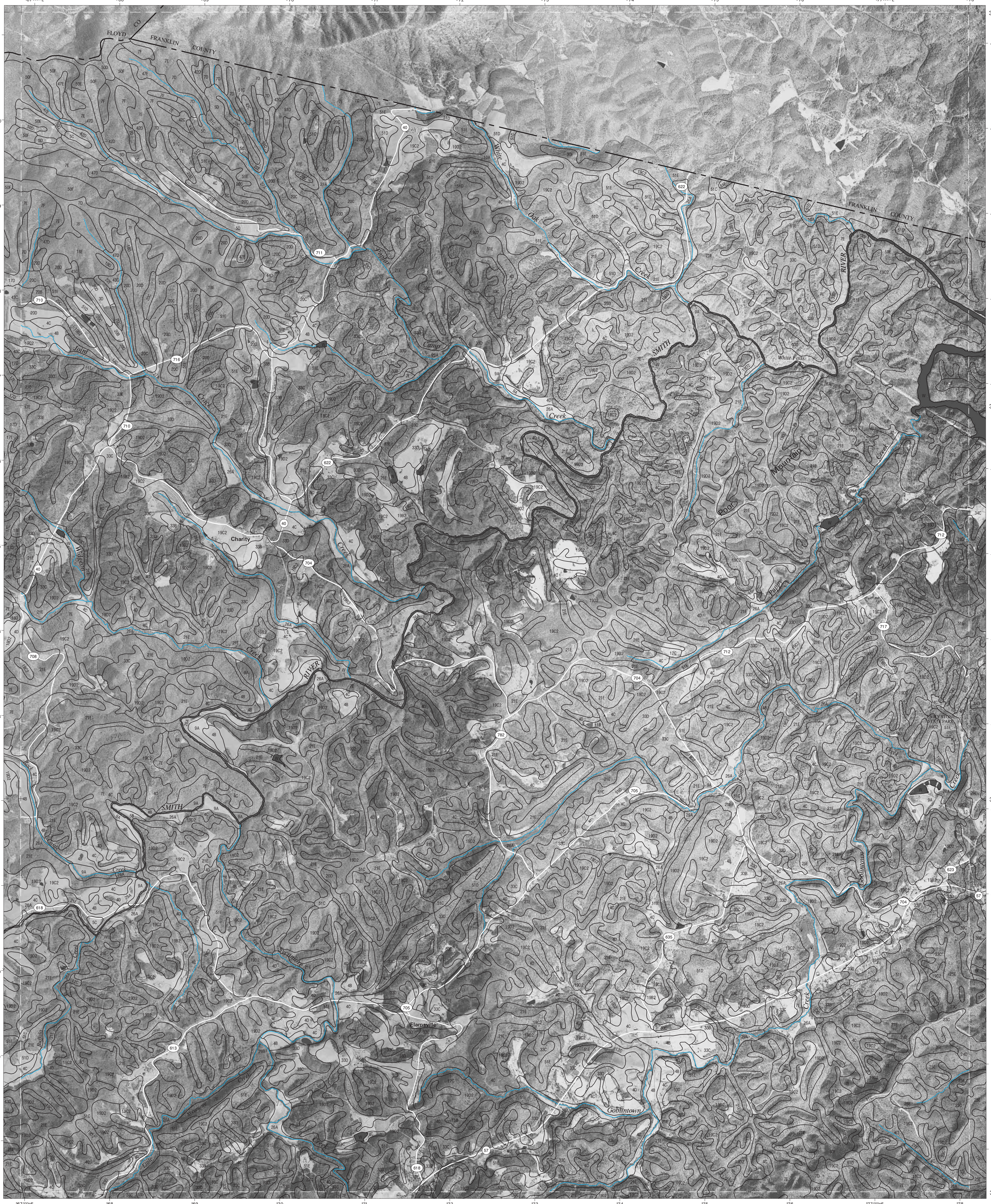
WOOLWINE, VIRGINIA

7.5 MINUTE SERIES
SHEET NUMBER 2 OF 14

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
CHARITY QUADRANGLE
SHEET NUMBER 3 OF 14



Joins sheet 7, Stuart

Joins sheet 8, Patrick Springs

Joins sheet 9, Sanville

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North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

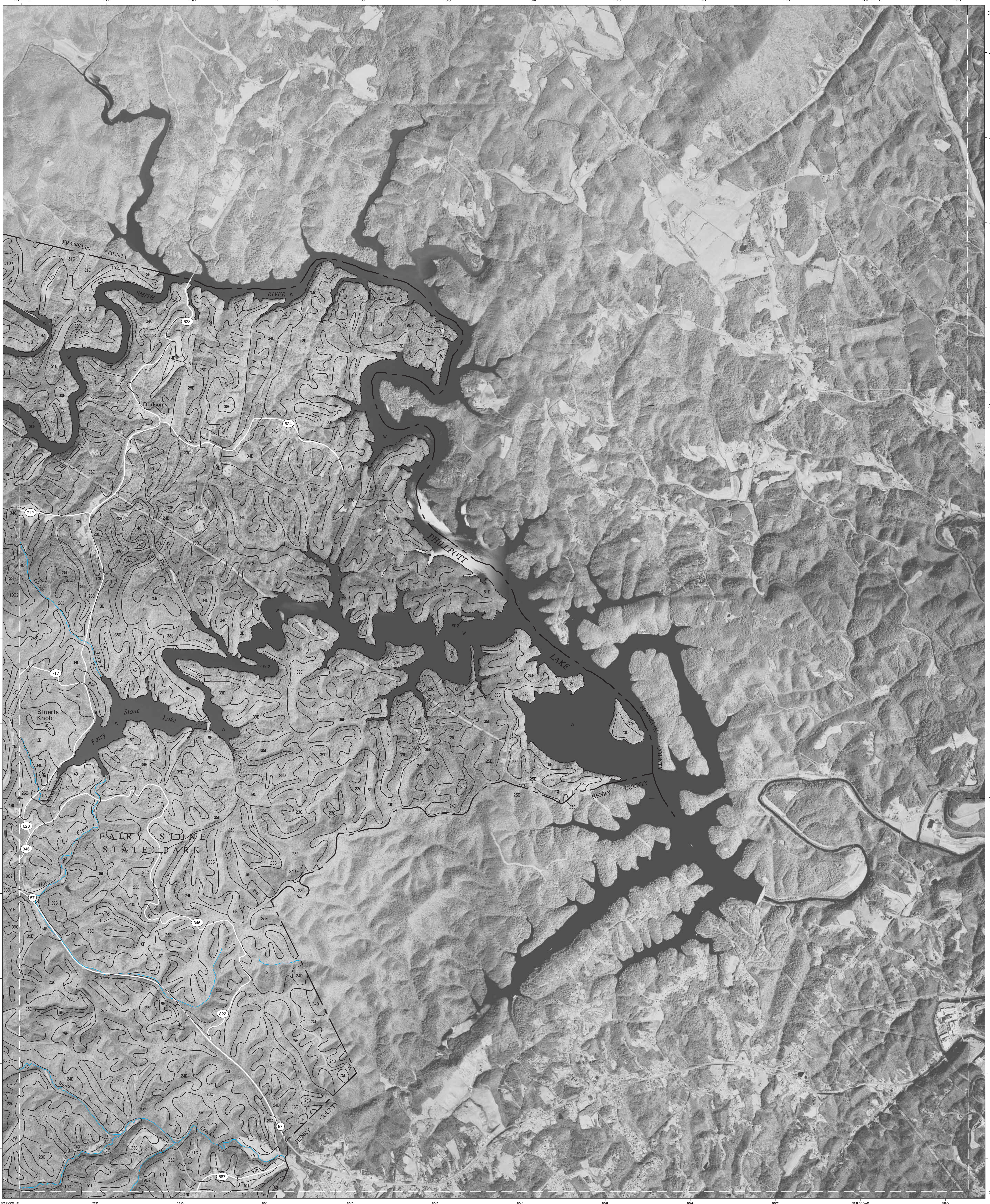
2 WOOLWINE
4 PHILPOTT RESERVOIR
7 STUART
8 PATRICK SPRINGS
9 SANVILLE

CHARITY, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 3 OF 14

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

80° 07′30″ | 80° 05′00″ | 80° 02′30″ | 80° 00′00″

36° 52′30″



36° 50′00″

36° 47′30″

36° 45′00″

80° 07′30″ | 80° 05′00″ | 80° 02′30″ | 80° 00′00″

Joins sheet 3, Charity

Joins sheet 9, Sanville

Joins sheet 8, Patrick Springs

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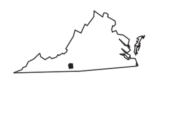
North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

MILES: 1 0 1

FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000

KILOMETERS: 1 0 1

3	■	
8	9	

3 CHARITY
8 PATRICK SPRINGS
9 SANVILLE

INDEX TO ADJOINING 7.5 MAPS

PHILPOTT RESERVOIR, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 4 OF 14

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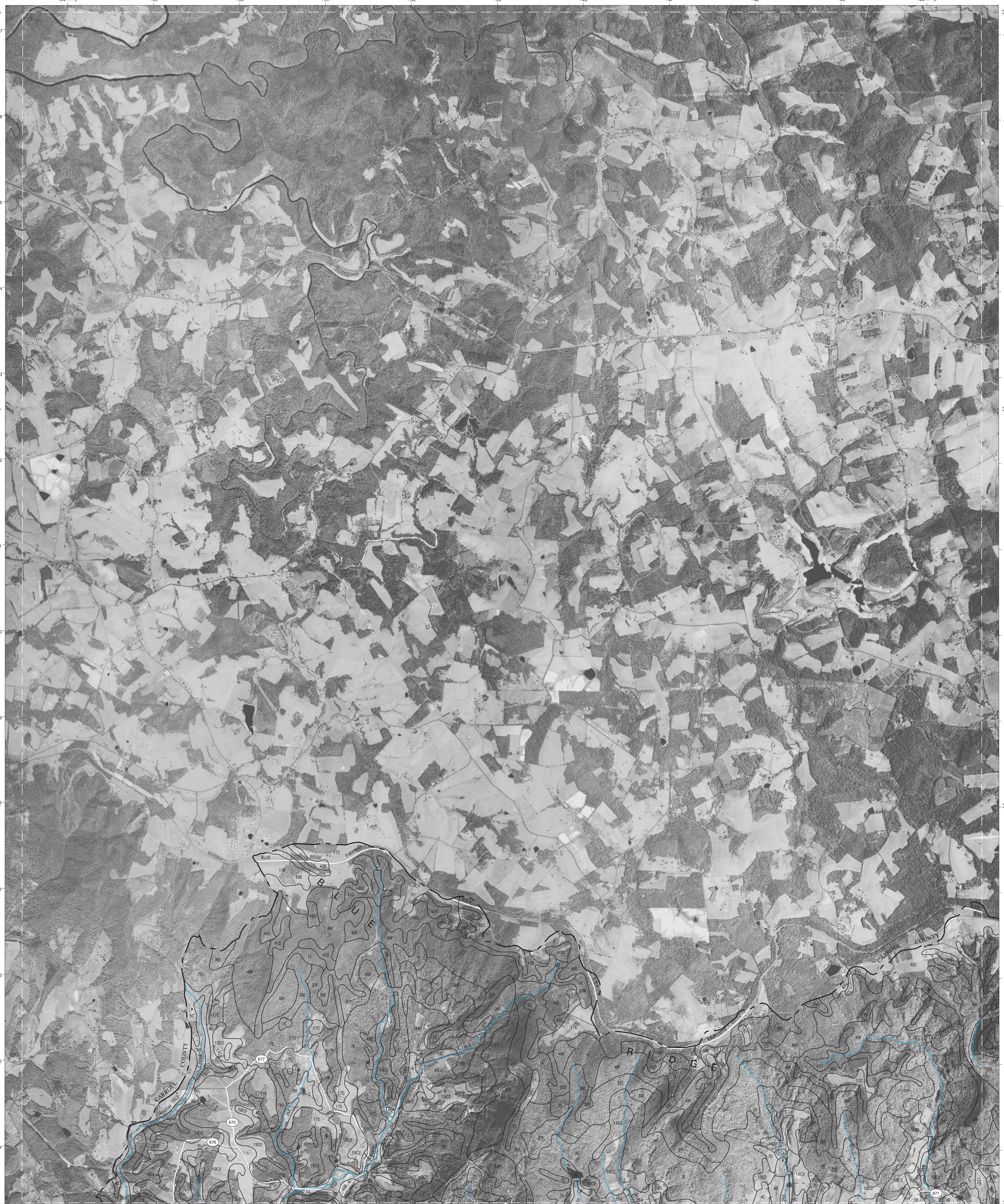
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
LAUREL FORK QUADRANGLE
SHEET NUMBER 5 OF 14

Joins sheet 1, Willis



Joins sheet 6, Meadows of Dan

Joins sheet 10, Mount Airy North

Joins sheet 11, Claudville

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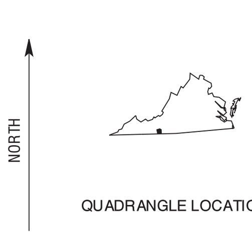
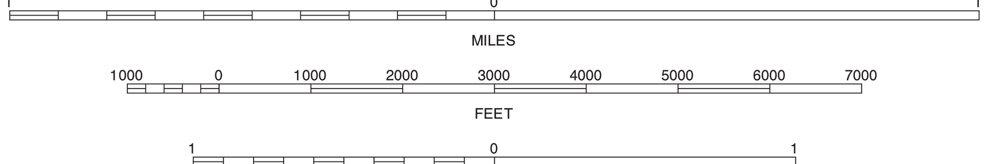
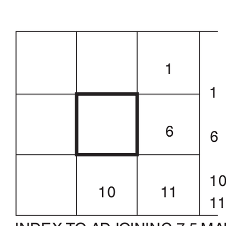


QUADRANGLE LOCATION

SCALE 1:24000





1 WILLIS
6 MEADOWS OF DAN
10 MOUNT AIRY NORTH
11 CLAUDVILLE

INDEX TO ADJOINING 7.5 MAPS

LAUREL FORK, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 5 OF 14

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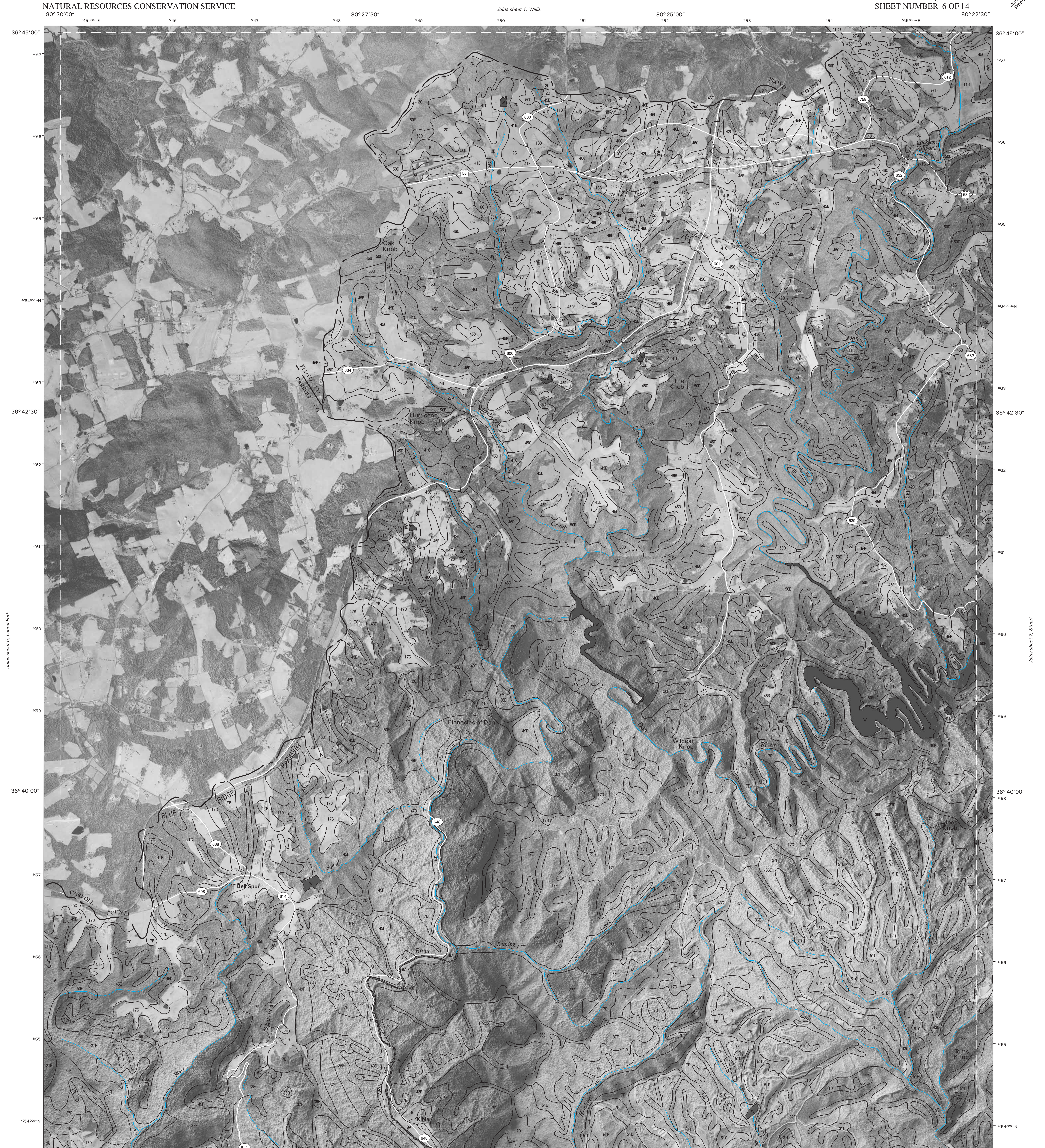
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
MEADOWS OF DAN QUADRANGLE
SHEET NUMBER 6 OF 14



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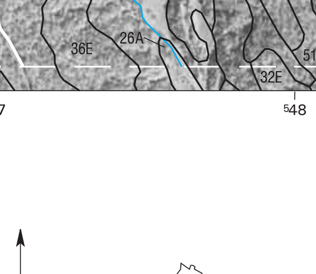

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

	1	2
5		7
10	11	12

1 WILLIS
2 WOOLWINE
5 LAUREL FORK
7 STUART
10 MOUNT AIRY NORTH
11 CLAUDVILLE
12 STUART SE

INDEX TO ADJOINING 7.5 MAPS

MEADOWS OF DAN, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 6 OF 14

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UNITED STATES
DEPARTMENT OF AGRICULTURE
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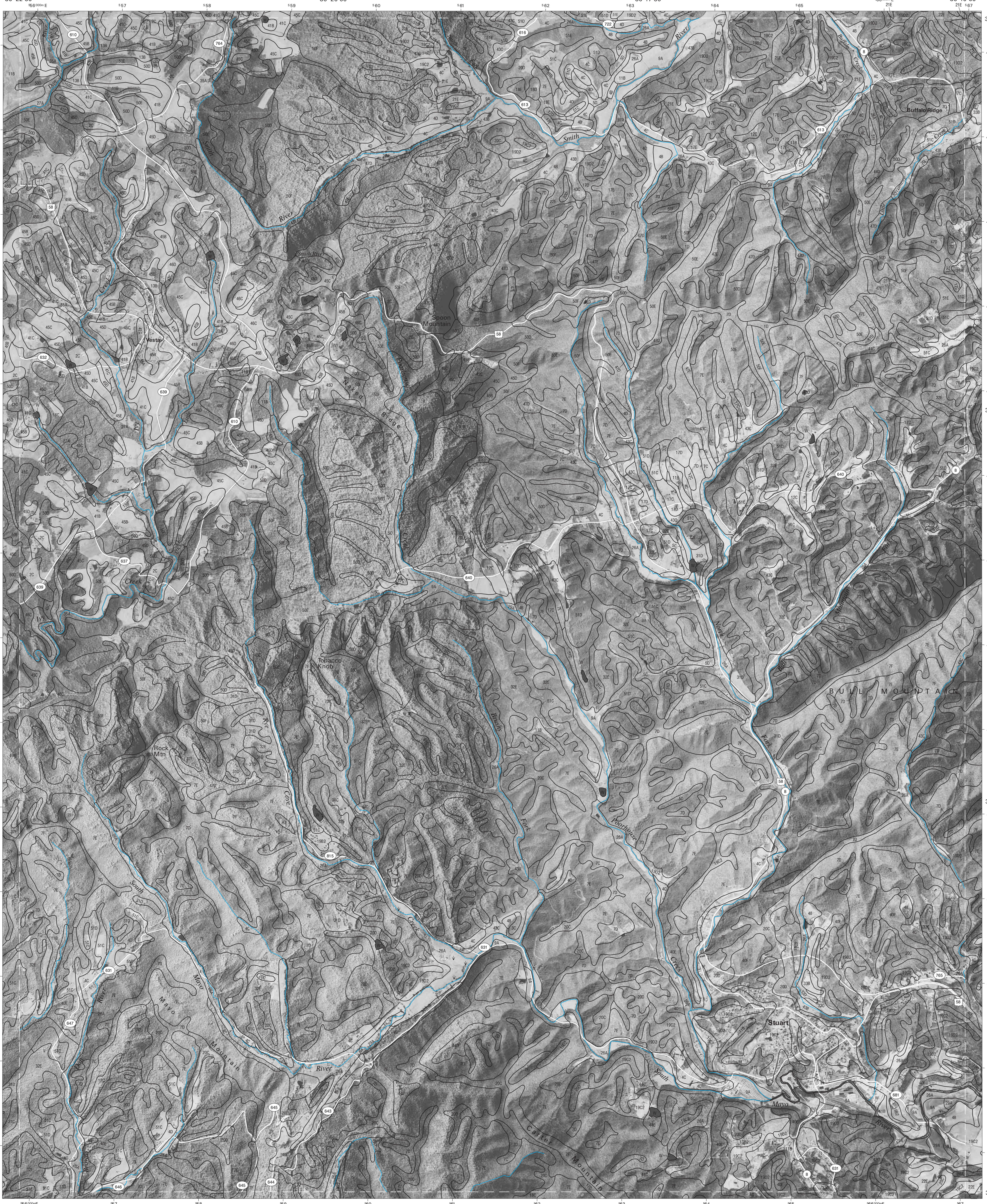
PATRICK COUNTY, VIRGINIA
STUART QUADRANGLE
SHEET NUMBER 7 OF 14



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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

1	2	3
6		8
11	12	13

1 WILLIS
2 WOOLWINE
3 CHARITY
6 MEADOWS OF DAN
8 PATRICK SPRINGS
11 CLAUDVILLE
12 STUART SE
13 NETTLERIDGE

INDEX TO ADJOINING 7.5 MAPS

STUART, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 7 OF 14

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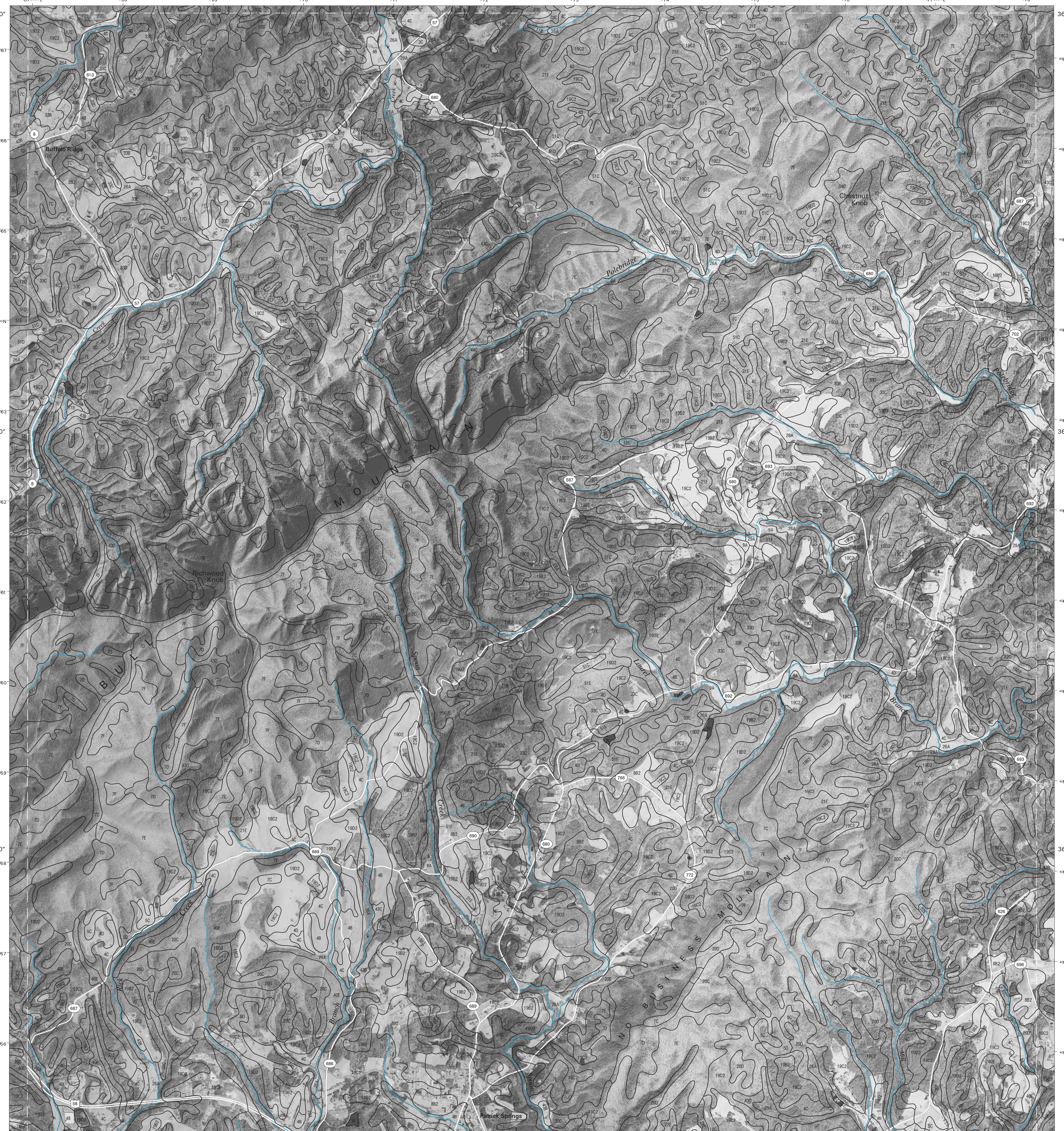
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
PATRICK SPRINGS QUADRANGLE
SHEET NUMBER 8 OF 14

Joins sheet 2, Woolwine

Joins sheet 3, Charity

Joins sheet 4, Philpott Reservoir



Joins sheet 7, Stuart

Joins sheet 9, Sanville

Joins sheet 12, Stuart SE

Joins sheet 13, Nettleridge

Joins sheet 14, Spencer

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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

2	3	4
7		9
12	13	14

2 WOOLWINE
3 CHARITY
4 PHILPOTT RESERVOIR
7 STUART
9 SANVILLE
12 STUART SE
13 NETTLERIDGE
14 SPENCER

INDEX TO ADJOINING 7.5 MAPS

PATRICK SPRINGS, VIRGINIA

7.5 MINUTE SERIES
SHEET NUMBER 8 OF 14

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UNITED STATES
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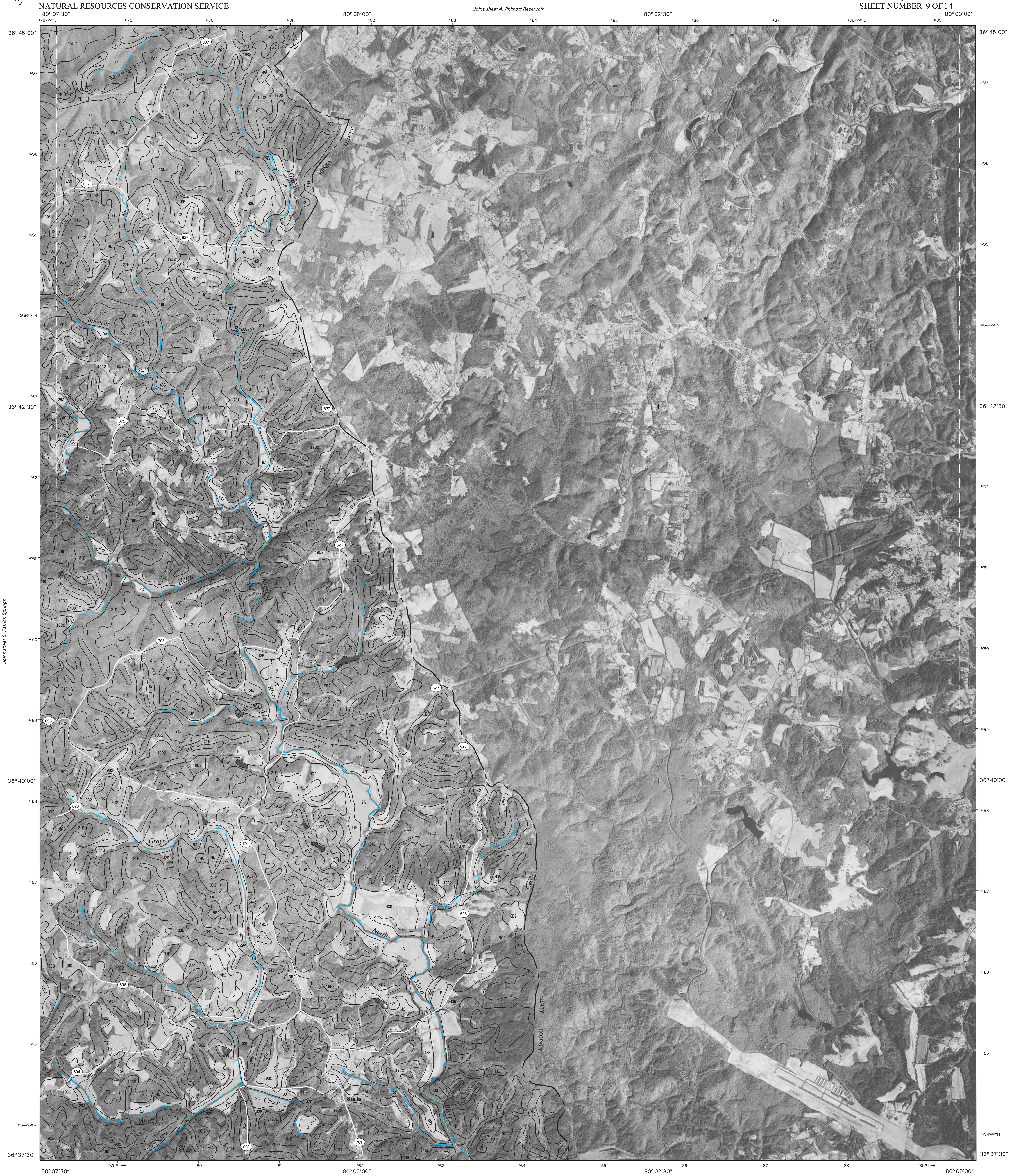
NATURAL RESOURCES CONSERVATION SERVICE

PATRICK COUNTY, VIRGINIA
SANVILLE QUADRANGLE
SHEET NUMBER 9 OF 14



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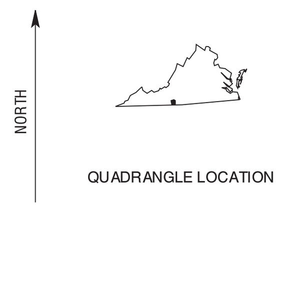
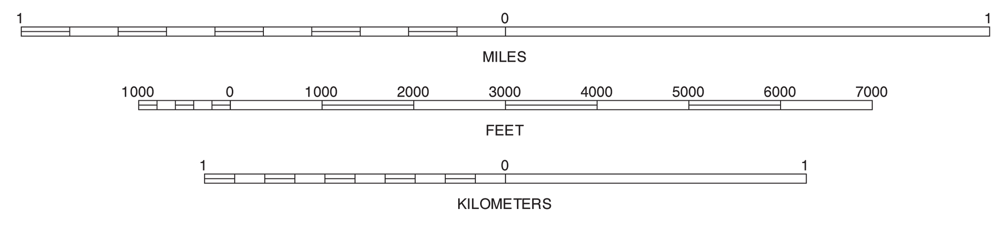


QUADRANGLE LOCATION

SCALE 1:24000



3	4	
8		
13	14	

3 CHARITY
4 PHILPOTT RESERVOIR
8 PATRICK SPRINGS
13 NETTLERIDGE
14 SPENCER

INDEX TO ADJOINING 7.5 MAPS

SANVILLE, VIRGINIA
7.5 MINUTE SERIES
SHEET NUMBER 9 OF 14

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